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**MODERATING EFFECT OF EMPLOYEE'S
COMMITMENT TO CHANGE ON THE RELATIONSHIP
BETWEEN LEADERSHIP STYLES AND EMPLOYEE'S
READINESS TO CHANGE IN YEMEN**

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**DOCTOR OF PHILOSOPHY
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EMPLOYEE'S READINESS TO CHANGE IN YEMEN**

By



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**Thesis Submitted to
School of Business Management,
Universiti Utara Malaysia,
In Fulfilment of the Requirement for the Degree of Doctor of Philosophy**

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ABSTRACT

Change in the public sector is one of the main concerns due to its critical role in enhancing the public sector which consequently contributes to the development of the economy and society. Yemen as a least developed country, its employees of public sector were unable to implement the changes planned. Besides, there is a gap in the literature in terms of examining the influencing and moderating factors that could affect the employee's readiness to change. The aim of this thesis is to examine the effects of transformational leadership (TFL) style, transactional leadership (TAL) style and employee's commitment towards change (ECC) on the employee's readiness to change (ERC). The thesis also examines the moderating effect of ECC on the relationship between the two leadership styles (TFL and TAL) with ERC. The thesis utilizes Lewin's model and Social Exchange Theory (SET) as guiding theories and employs cross-sectional survey. The questionnaires were administered to collect data from the employees of the public sector in Yemen. Out of 768 questionnaires distributed through a self-administered approach, 387 usable responses were used for the analysis. By using Partial Least Square-Structural Equation Modeling, the findings show significant effects of TFL and ECC on the ERC. Furthermore, the findings show that TAL is not significantly related to ERC among the employees of the public sector in Yemen. Additionally, the findings reveal that ECC is a significant moderator on the relationship between TAL and ERC. These findings provide theoretical and practical implications. It contributes towards the body of knowledge of how employees are ready to changes in the public sectors of a least-developed country. It also provides significant insights in explaining a roadmap that help in understanding the most influential factors on employee's readiness to change in a least developed country namely Yemen.

Keywords: transformational leadership style, transactional leadership style, employee's commitment towards change, employee's readiness to change, public sector, Yemen

ABSTRAK

Perubahan dalam sektor awam merupakan antara kebimbangan utama memandangkan peranan penting yang dimainkan dalam meningkatkan sektor awam yang seterusnya menyumbang kepada pembangunan ekonomi dan masyarakat. Yaman sebagai negara paling kurang maju, pekerja sektor awam tidak dapat melaksanakan perubahan seperti yang telah dirancang. Selain itu, terdapat jurang dalam literatur dari segi mengkaji faktor yang mempengaruhi dan faktor penyederhanaan yang boleh mempengaruhi kesediaan pekerja untuk berubah. Tujuan tesis ini adalah untuk mengkaji kesan gaya kepimpinan Transformasi (TFL), gaya kepimpinan transaksional (TAL) dan komitmen pekerja terhadap perubahan (ECC) ke atas kesediaan pekerja untuk berubah (ERC). Tesis ini juga menyelidik kesan penyederhanaan ECC terhadap hubungan antara dua gaya kepimpinan (TFL dan TAL) dengan ERC. Tesis ini menggunakan model Lewin dan Teori Pertukaran Sosial (SET) sebagai panduan teori dan menggunakan kaji selidik keratan rentas. Soal selidik telah ditadbir untuk mengumpul data daripada kakitangan sektor awam di Yaman. Daripada 768 soal selidik yang diedarkan melalui pendekatan yang ditadbir sendiri, 387 maklum balas yang boleh digunakan untuk dianalisis. Dengan menggunakan Pemodelan Persamaan Berstruktur Separa Terkecil (PLS-SEM), dapatan menunjukkan kesan signifikan TFL dan ECC terhadap ERC. Tambahan pula, penemuan menunjukkan bahawa TAL tiada perkaitan yang signifikan dengan ERC dalam kalangan pekerja sektor awam di Yaman. Selain itu, penemuan menunjukkan bahawa ECC adalah penyederhana yang signifikan dalam hubungan antara TAL dan ERC. Penemuan ini memberikan implikasi teori dan praktikal. Dapatan kajian menyumbang kepada bidang ilmu tentang bagaimana kesediaan pekerja untuk berubah dalam sektor awam di negara yang paling kurang maju. Dapatan kajian turut memberikan gambaran yang penting dalam menjelaskan garis panduan bagi membantu dalam memahami faktor yang paling berpengaruh terhadap kesediaan pekerja untuk berubah di Yaman.

Kata kunci: gaya kepimpinan transformasi, gaya kepimpinan transaksional, komitmen pekerja terhadap perubahan, kesediaan pekerja untuk berubah, sektor awam, Yaman

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LIST OF ABBREVIATIONS

APP	Appropriateness
CHE	Change Efficacy
COC	Continuance Commitment
COR	Contingent Reward
ECC	Employee's commitment towards change
ERC	Employee's readiness to change
IDI	Idealised influence
INC	Individualised Consideration
INM	Inspirational Motivation
INS	Intellectual Stimulation
MAS	Management Support
MEA	Management by Exception Active
MEP	Management by Exception Passive
MLI	Margin In Life
MLQ	Multifactor Leadership Questionnaire
NOC	Normative commitment
PEB	Personally Beneficial
SET	Social Exchange Theory
TAL	Transactional leadership
TFL	Transformational leadership



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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Changes are concerned widely due to its significance in improving the organization's position. Changes are also observable facts that individuals and organizations experience in a daily basis because it is dynamic (Battilana, Gilmartin, Sengul, Pache, & Alexander, 2010). It is stated that changes have become one of the most significant challenges for organizations and leaders alike, at all levels (Herold, Fedor, Caldwell & Liu, 2008; Kirrane *et al* 2017). The internal and external factors such as globalization, turbulent business environment, economical changes and rapid technological advancements have compelled organizations to respond to these changes effectively in order to be sustainable and competitive in the market (Gelaiddan, Al-Swidi, & Mabkhot, 2018). Furthermore, Herold *et al.* (2008) also argued that if the organization does not respond to these daily challenges for changes, it might lose its share of the market to its competitors. Thus, changes are important ingredients of the organization's ability to survive in the competitive world.

Moreover, the rapid changes have currently forced the organizations to adopt reforms regardless of nature of their business, whether it is a public or private entity. According to Mossholder, Settoon, Armenakis and Harris (2000) and Smith (2005), it is impossible for an organization to be stationary without changes in this era. This

is due to the fact that changes are needed to be made in order for the organization to be able to gain its competitive advantage. Changes are also vital in organizations as a benchmark among public sectors. When leaders utilize effective vision-driven change strategies, they are able to achieve competitive advantages and better performances (Kantabutra & Avery, 2010). It is crucial for leaders of organizations to increase the expected performances through regular evaluations and appropriate incentives to make planned changes (Abbasi, 2017). Based on these facts, governments that endeavour to get development are expected to improve their reactions in targeting and accomplishing their strategic goals. This shows that changes are an important process for all organizations, including the public sectors, towards sustaining competitive advantages and superior performances.

The government of Yemen has realised the importance of improving the organization, in order to meet and satisfy the needs of the public as well as the marketplace competitiveness. Therefore, it has started its first step to implement the changes in the public sector by early 1990 (Gelaidan & Ahmad, 2013). However, many challenges and obstacles toward changes are encountered along the way. For example, the civil war which occurred in 1993 had halted the process for changes for many years to come. In these years, employees of public sector organizations were unable to implement the changes planned.

In response to the challenge, the government promoted and took actions in the form of restructuring, reforming, merging and acquiring, reengineering, decentralizing and downsizing to resume the process of changes. As a result, with the support of the World Bank, the Yemeni government launched the biggest changing phenomena in

the early 1997, known as the Financial and Administrative Reforms (Strategic Vision 2025).

In accordance with this, Khassawneh (2005) suggested that Yemeni organizations need to respond to the call of changes swiftly in order to sustain themselves. The employees of the Yemeni public-sector organizations are suffering due to low income, low security, low job justice and low involvement/participation, which lead towards low empowerment and low job satisfaction. Employees are unable to fulfil their needs that are harmful to the changing and development processes, not only among the followers but also among the leaders (Gelaidan & Ahmad, 2013). Based on these reasons, the Yemeni public sector's employees have low commitment levels and are not ready to change. Moreover, corruption is also one of the barriers towards employee's readiness to change. The popularity of corruptions known to be associated with the Yemeni public sectors are a one of the critical factors for the changing failures in Yemen (Gelaidan & Ahmad, 2013). All these issues lead to lower level of commitments as well as low level of readiness to change among employees in the Yemeni public sector.

In 2007, different steps were taken by the Yemeni government to support such changes. Changes were implemented in two stages, where the first stages included implementation of changes in four ministries and the second stage included overall implementation of changes in public sectors. The primary objective of the changes were to enhance efficiency and effectiveness of the public sectors by increasing employee's willingness to changes and by reducing corruptions, which leads to prioritize good services to the public and the country (Gelaidan & Ahmad, 2013). However, the results have indicated that the Yemeni government has failed to

implement the changes and improved the economy. According Al-Batul, Al-Hawri, Cicowiez, Lofgren and Pournik (2012), Yemen is regarded as one of the poorest and least developed countries in the Arabic region.

Moreover, it is estimated that 54.5% of the Yemeni people live under the poverty line in 2012 (Engelke, 2012) and a 14.6% unemployment rate was recorded in 2009 (World Bank, 2015). Yemen has not been politically stable since the Arab Spring Revolutions which took place in 2011 until the time of the study. Moreover, the war rose by Huthis in 2014, a minority religious (Shi'a) group, has worsened the situation, politically and economically. Table 1.1 highlights some of the main economic indicators of Yemen from 2006-2011.

Table 1.1
Some Main Yemeni Economic Indicators

Indicator /Year	2006	2007	2008	2009	2010	2011
Growth of GDP %	3.2	3.3	3.6	3.9	7.7	-10.5
Inflation(% Change)	10.8	7.9	19.0	5.4	11.2	16.4
Exports of goods and services (Growth %)	15.0	-2.0	29.0	-7.0	36.0	...
Imports of goods and services (Growth %)	9.0	11.0	58.0	0.0	6.0	...
Lending spread	5.0	5.0	5.0	7.3	5.0	...
Unemployment (% labour force)	15.7	15.4	14.0	14.6

Source: World Bank, 2015

The failure of achieving the Financial and Administrative Reforms' objectives and improvement of the economy in Yemen goes back to many reasons. For example, it is reported that corruption is an abundant phenomena in Yemen which can be found in every office (Human Rights Practices Report, 2015). It is also argued that Yemeni

public sector was one of the highest corrupted sectors in the world which is considered as a critical factor for failure (Gelaidan & Ahmad, 2013). Furthermore, low incomes, high job dissatisfaction, low empowerment, low job justice, low readiness of change, and insecurity were recorded by the public sector's employees, leading not to fulfil their needs. Consequently, changes and development are not processed among the followers and leaders alike. This also added a severe barrier to change and development (Ahmad & Gelaidan, 2011).

Al-Alimi the Deputy Prime Minister (2007) declared that the existing level of leadership skills and lack of commitment are the problems for changes in Yemen, especially in the public sector. Moreover, Gelaidan and Ahmad (2010) and Khassawneh (2005) suggested that weak commitment of employee towards changes is an obstacle to implement organizational change in Yemen. This indicates that the low level of readiness to change, leadership styles and low level of commitments among the public sector employees in Yemen are among the reasons behind the failure of implementing the strategic objectives stated by the Yemeni government.

To be in line with the discussion above, strategies like the organization's hierarchy, mission, vision, motivation, support group, and management-oriented goals are crucial and needed for successful changes within an organization (Appelbaum, St-Pierre & Glavas, 1998). If these factors are not well strategized, changes may not be successful due to employees' unwillingness to change. Therefore, it is essential to ensure that the organization is ready for changes and the changes are suitable for the organization (Collins & Hower, 2014). In addition, leaders will not be successful without the support from their followers. In other words, employees' readiness

towards changes is important in the changes' process, ensuring the survival of the organization (Gelaidan, Al-Swidi, & Mabkhot, 2018).

It is also claimed that the process involved in implementing changes are sometimes difficult and could only lead to partial success (Kwahk & Lee, 2008). In most cases, employees generally might be ready to support changes, unless faced with difficulties (Armenakis & Bedeian, 1999; Bernerth 2004; Vakola & Nikolaou, 2005; Zayim, M., & Kondakci, Y. 2015; Rafferty, Jimmieson, & Armenakis, 2013). In accordance with this, Fullan (1991) proposed that the opinion of the employees must be considered in favour of organizational changes. Additionally, institutions are required to acknowledge the diverse understandings, beliefs and expectations of their workers (Getzels & Guba, 1957). Hinkin (1998) has identified appropriateness, management support, change efficacy and personal benefits to be the four dimensions of readiness toward changes.

Readiness of employees of an organization is mostly seen as a crucial factor for the changes in organization (Al-Hussami, Hammad, & Alsoleihat, 2018; Gelaida *et al.*, 2018). Readiness refers to the extent to which those concerned with implementing the changes are individually and collectively primed, motivated, and technically ready to carry out the changes. Specifically, readiness involves psychological factors that indicate the depth at which an individual realised that an issue requires attention, as well believed in redesigning, dedicated to cater for the problem (Armenakis & Harris, 2009; Kotter, 2008). Readiness in general also relies on structural factors which reflect the circumstances under which changes may occur and the degree to which these circumstances reinforce or inhibit the changes implementation success.

Backer (1995) suggested that individual's readiness to change involve attitudes, and intentions in respect to the degree at which changes are required and their view of organizational and individual capability to implement the changes successfully. Readiness is not a static element of individuals or systems. It changes due to internal or external influence, in line with the type of changes being proposed, or the type of change's agents and adopters. Therefore, interventions to increase an employee's readiness are not impossible. The possibility of success becomes very low as low readiness leads to low motivation to changes or increases the level of resistances among the employees. In brief, the level of readiness to change among the employees within organizations can be increased, which is a prerequisite to the changes' success.

It is argued that transformational and transactional leadership styles are among the tools to enhance employee willingness to change (AL-Abrow & Abrishamkar, 2013; Reid, 2011). To elaborate more, the Transformational leadership is an energetic and enthusiastic style which leads to positive changes through motivating the subordinates to find out innovative ways which enable them to obtain the organizational objectives (Bass, 1985). On the other hand, transactional leadership focuses on a given and task process by which the subordinates are motivated to accomplish their tasks successfully. Specifically, in transactional leadership, the leaders meet the needs of their subordinates by giving them rewards only when the organizational objectives planned by the leaders are successfully attained (Avolio & Bass, 2002).

Moreover, it is concluded that transformational leadership is a major antecedent of procedural justice while transactional leadership is a significant antecedent of distributive justice, and both leadership styles are antecedents of trust (Ismail, Mohamad, Mohamed, Rafiuddin, & Zhen, 2010) which automatically leads the readiness to change. Both transformational leadership and transactional leadership have significant positive relationship with employees' commitments (Gelaidan & Ahmad, 2013) and employees' commitments have significant positive relationship with employees' satisfaction (Hussain, Rizwan, Nawaz, & Hameed, 2013) and employees' readiness for changes. However, in some cases, leadership shows negative effects due to various reasons such as using superior uses of pressure, exchange and legitimating tactic (Falbe & Yukl, 1992; Sparrowe, Soetjipto, & Kraimer, 2006). Therefore, the extent employee's acceptance of changes is based on leadership styles whether transformational or transactional leadership.

Chrusciel (2006) identified that the impact of leaders in implementing changes is one of the most crucial factors for attaining success. Therefore, many empirical studies have tried to determine the attributes and traits of transactional leadership style as well as transformational leadership styles (Burns, 1978). Transactional leadership style can be seen as a kind of motivational process whereby leaders give rewards in exchange to the subordinates' improved performances (Bass, 1985). Transformational leadership goes beyond transactional style of leadership; it motivates subordinates to acknowledge the leaders' goals and to dedicate them towards the success of the organization. The characteristics of transformational leadership includes attention to personal development, charisma, and capability and

readiness to provide mental motivation, which are essential to leaders whose members are demanding changes (Bass, 1985).

Tichy and Devanna (1986) are of the opinion that transformational styles of leadership can be a catalyst in a changing operation process; where leaders can develop the acceptance and awareness level of the change among their subordinates. Therefore, due to the advantages of transformational leadership, application of this type of leadership should be an important goal in organizations. Shamir, House and Arthur (1993) stated that leaders of the organizations are required to seek higher degree of organizational commitment. When employees are confined to the objectives of the organization, they tend to perform actions toward supporting the organization, even if these activities are not really of priority (Deetz, Tracy, & Simpson, 1999).

Successfully implementing continuous organizational changes are crucial (Elias, 2009). Members of an organization can either be the catalyst towards a successful organizational change or the cause of failure for an organizational change. The loss due to failure of an organizational change may lead to serious consequences, resulting in lowering the credibility of existing leaders and suppressing employees' desires to further change efforts (Weiner, 2009). Leaders who aim at achieving an organizational change success are required to take into considerations the needed requirements to improve readiness towards changes and seek methods for successful achievement (Kotter & Schlesinger, 2008). Any perceptions would indicate as resistance might not be the fault of the employees, but rather the failure of leaders to successfully motivate and manage readiness to change. When an organization

proposes a change, it evaluates the impact of the change on the organization. By evaluating of a proposed change, a better stance can be chosen for implementation.

Generally, it is observed that commitments from people in the organization lead to a smooth change process (for example, Shum, Bove, & Seigyoung, 2008; Svensen, Neset, & Eriksen, 2007). For successful and positive change programs implementation, there are some perquisites that should be taken into considerations (Kotter, 1996). For example, high commitments from the employees as well as the leaders are essential to increase the changes success rate. Moreover, it is argued that an organization cannot execute any change initiatives if the employees do not show acceptances towards those changes (Conway & Monks, 2008; Meyer, Srinivas, Lal, & Topolnytsky, 2007).

Additionally, when cooperation perceptions are been engulfed and prevails in the organization, employees tend to accept the organization more and will lead to increased loyalty, commitment and decisions that support the organization's goals (Deetz *et al*, 1999). Particularly, the employee's commitment is vital in decision making and adaptation of changes in any organization (Marchalina & Ahmad, 2017). Therefore, developing commitments are relevant for changes process. Yet many organizations implementing changes have not acknowledged the relevancy of employees' commitments and how to prepare for it.

It is also claimed that the level of commitments are a major factor for most organizational change failures (Burke, 2002; Probst & Raisch, 2005). Kotter (1995)

also claimed that misunderstanding the needs for an organizational change is another factor of failing an organizational change. Human resource is a paramount resource in an organization; it increases the efficiency and the effectiveness of the organization and adds to the formation of competitive advantages of the organization (Cania, 2014; Mangundjaya & Gandakusuma, 2013). Based on this, organization's success relies heavily on employee's commitment towards reaching the organization's targeted goals.

1.2 Problem Statement

Political changes that have been experienced since 2010 in some Arab lands in the north Africa and the Middle East (MENA) which named widely as Arab Spring was a result of internal crisis has subsequently call for changes in most of the existing institutions. Salamey (2015) argued that the pattern and dynamic of change does not seem to evolve along a linear path nor are their results indicative of any of change theories. He emphasised that assessment of change requires an In-depth analysis of the context to understand its effect to status of economic, social and political environments.

As discussed previously, the public sector plays an important role in the development of the economy by assuming national level public service responsibilities while the government efficiency is crucial in upholding the social and economic order of a country (Baraldi, Kalyal, Berntson, Naswall & Sverke, 2010; Marchalina & Ahmad, 2017). Therefore, the Yemeni government launched

reforms specifically aimed towards the public sectors, which was known as the “Financial and Administrative Reforms” in 1997. The main goal of this change is to improve the effectiveness and efficiency of the public sector services and keeping up with the current changes in the world.

However, the Yemeni public sector has been suffering from different issues and consequently changes had not been successfully implemented. According to Gelaidan and Ahmad (2013), the corruption in the Yemeni public sectors is critical, thus leading to the failure of change implementation. They also argued that the employees of the public sectors reflect low job satisfactions and empowerments due to low income, low security, low job justice and low involvement. All these issues result in low level of readiness for changes among the employees. Moreover, Al-Alimi (2007), the Deputy Prime Minister, stated that the lacks of leadership skills as well as low commitments are among the reasons behind the failure of changes in Yemen, especially the public sectors. Gelaidan and Ahmad (2013) emphasised that the employees should be involved in the change process and they change themselves first unless the change initiatives will not find the way to success and such changes would not be possible. Gelaidan and Ahmad (2010), and Khassawneh (2005) suggested that weak commitments from employees toward changes are an obstacle to implement organizational changes in Yemen. This shows the urgent need to carry out a research on the employees’ readiness to change in the Yemeni public sectors and factors influencing it such as leadership styles and employee’s commitment to changes.

In the contemporary global requirements, change proposals are considered as crucial factors for organizations aiming to achieve effectiveness and efficiency (Chen & Wang, 2007). Al-Haddad and Kotnour (2015) asserted that the duration of time for a change in organization to take place could be long, thus planning for change, and addressing the critical factors is important to lead change successfully. The success rates of implementing changes within organizations to meet expected outcomes have been reported to be as low as 10% (Oakland & Tanner, 2007). It is believed that an organizational change is a challenge for all organizations regardless of the business nature. Thus, organizational changes bring to focus strategies for coping with rapid changes in the world towards effectiveness and efficiency in an unstable environment (Erakovic & Powell, 2006). Owing to the changing in the business environment, organizations have been confronted with the need to implement changes, as it relates to their structure, process and culture (Battilana *et al.*, 2010; Herscovitch & Meyer, 2002).

In line with the discussion above, it is assumed that no organization can implement a perfect change, unless employees are ready to accept the change (Rafferty *et al.*, 2013; Vakola & Nikolaou, 2005). In line with this, changes may not be efficient and effective if employees are not carried along, and a successful change might be impossible unless individual change themselves. Moreover, although changes can be managed externally, it can only be implemented when employees are ready to accept the desired change internally (Howarth & Rafferty 2009; Lo *et al.*, 2010). Thus, this indicates the crucial role of employees' readiness and acceptances toward changes in the success of change initiatives (Rafferty, Jimmieson, & Armenakis, 2013).

According to Drucker (2002), the best way to successfully manage changes is by focusing on leadership. In addition, Fiedler (1967) confirmed that leadership is one of the main factors that can affect others. Therefore, effective leadership is a critical element to any organizational change success. This view was supported by various experts such as Ahmad, Francis, and Zairi, (2007), Bass and Riggio (2006), Battilana *et al.* (2010), Herold *et al.* (2008). According to Herold *et al.* (2008), leadership and organizational changes are crucial factors that needed to be studied by researchers because a successful organizational change requires an effective leader who can facilitate the change.

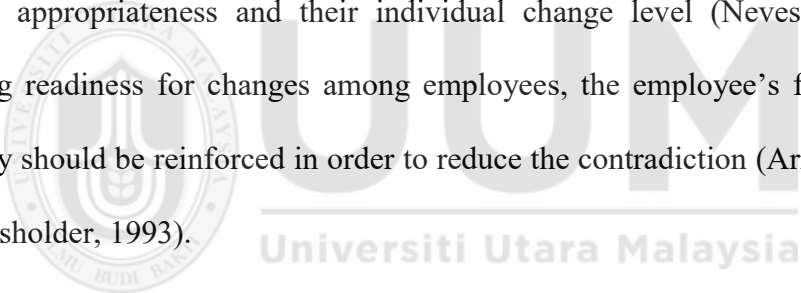
Literature review shows that leadership has been studied from various aspects such as behaviours (Fleishman, 1953), traits (Stogdill, 1948), situational theory (e.g., Hersey, Blanchard & SA 1977), contingency theory (Fiedler, 1967) and transformational and charismatic leadership (House, 1977). Few of these authors (AL-Abrow & Abrishamkar, 2013; Lyons, Swindler & Offner, 2009; Reid, 2011) have discussed the influence of the leadership styles on the employee's readiness to change. Moreover, it is argued that although the association between the leadership styles and employee's readiness towards changes are an intuitive, there remains a scarcity of studies examining such relationship empirically (Lyons *et al.*, 2009) particularly in public sector (Fernandez & Pitts, 2007; Kuipers, Higgs, Kickert, Tummers, Grandia, & Vander Voet, 2014). In addition, the organizational change and leadership have been and will continue to be a critical topic of study among researchers as well as practitioners (Herold *et al.*, 2008). Therefore, it is clear that there is an urgent need to understand the style of effective leadership in leading changes, in the context of readiness to change.

Within the context of examining the direct effect of employee's commitment to changes on employee's readiness to change, it is argued that employee's commitment to change is generally acknowledged to be an important component in supporting organizational changes (Baraldi *et al.*, 2010; Fedor, Caldwell & Herold, 2006). The major of firms tend to reveal the talents and enthusiasm of employees through organizational commitment (Senge, 2014). This is because of its significant role in the enhancement of internal communication within organizations (Carrière & Bourque, 2009) and communication has a role in a change process (Walker, Armenakis & Bernerth, 2007). Shum, Bove and Seigyoung (2008) and Svensen, Neset and Eriksen (2007) also supported the view that when there is commitment on the part of the individuals in an organization, changes will be facilitated. Elias (2009) also claimed that organizational redesign failures are mostly the result of human's perspectives. Empirically, AL-Abrow and Abrishamkar (2013) reported that the link between commitment to changes and employee's readiness to change has been confirmed.

Although some studies carried out on organizational changes target various aspects like communication (Schweiger & Denisi, 1991), leadership (Kotter, 1996), layoffs and turnover (Paterson, Green & Cary, 2002), and procedural fairness (Brockner, 2002), they have not focused on individual's commitments toward changes. Moreover, Meyer, Srinivas, Lal and Topolnytsky (2007) indicated that in spite of the fact that commitment is normally seen to be crucial for the success of change's implementation in the organizations, there still exist little empirical evidence to confirm this claim (Marchalina, & Ahmad, 2017). This explains that the link

between employee's commitment to changes and readiness for changes are still vague and examining this relationship fills the gaps in the literature.

With regards to the moderating effect of employee's commitments to changes on the relationship between leadership styles and employee's readiness to changes, employee's commitment has been generally seen as a pivotal aspect of behavioural intentions to support organizational changes (Fedor *et al.*, 2006). Specifically, employees' commitments to changes have been recognized as significant factor that works on creating a strong bond between the employees and the objective of the change (Baraldi *et al.*, 2010). It is also stated that the successful changes and affective commitment of employees to changes enhance the association between change appropriateness and their individual change level (Neves, 2009). When creating readiness for changes among employees, the employee's feelings of self-efficacy should be reinforced in order to reduce the contradiction (Armenakis, Harris & Mossholder, 1993).



In addition, in their study, AL-Abrrow and Abrishamkar (2013) discovered that commitment towards changes is significantly affecting employee's readiness for changes. Furthermore, some researchers have indicated that there are positive and significant link between the leadership styles and employee's commitment to the organization (Herold *et al.*, 2008; Lo, Ramayah, Run & Voon, 2009). Transformational style of leadership is significantly related to employee's commitment to changes (Limsila & Ogunlana, 2008) and commitment to changes is significantly related to employee's readiness for changes. It develops a positive relationship (Whittington Coker, Goodwin, Ickes, & Murray, 2009) and increases

employees' support to implement the changes (Herold *et al.*, 2008). On the other hand, transactional leadership style has the ability to develop a positive attitude among employees which causes change (Bennett, 2009).

However, it is claimed that practicing inappropriate leadership styles may lead to negative results and increase the sensitivity and susceptibility to the misunderstanding that may lead to declination of organizational work performances, increase absenteeism and high turnover (Lamude, 1994; Motowidlo, 2003). Therefore, it is crucial to prevent the negative outcomes of the subordinates through practicing different leadership styles. Mismatch may lead to an unending and potentially disruptive vicious cycle that many organizational leaders want to avoid (Lian & Tui, 2012).

Furthermore, various studies concluded that an excessive usage of pressure, exchange and legitimating tactic are expected to harm the relationship with the followers (Falbe & Yukl, 1992; Kipnis & Schmidt, 1988; Schriesheim & Hinkin 1990; Sparrowe *et al.*, 2006). In this case, transactional leadership shows a negative relationship with subordinates (Lian & Tui, 2012) which decrease readiness to change. Therefore, sometimes leadership behaviours show negative effects on employee's readiness for changes. Hence, according to Baron and Kenny (1986), there is a need to introduce a moderating variable to make the relationship clearer.

Although it has been claimed that organizational related behaviours such as commitment (Meyer, Stanley, Herscovitch, & Topolnytsky 2002) and leadership behaviour (Chrusciel, 2006) are also essential in comprehending organizational

changes, there are little findings that show the interaction between them (Keskes, 2014). Moreover, Gelaidan *et al.* (2018) found that employee's organizational commitment is a significant moderator on the relationship between leadership behaviour and employee's readiness for changes in Public Higher Education Institutions. In addition to that, it was discovered that bulk of research works are carried out on employee's readiness for changes and commitments to implementing changes in western countries (Foster, 2010; Madsen, Wahlberg, Tougaard, Lucke, & Tyack, 2006), while empirical researches in non-western countries are still scarce (Mellahi & Collings, 2010). It is also recommended to study Employee Commitment to Change as effecting on the relation between leadership styles and Employee Readiness to change (Kelly *et al*, 2017). Thus, this study addresses this gap by testing the moderating effect of employee's commitment to changes, on the relationship between leadership styles and employee's readiness to change.

In conclusion, the main purpose of the present study is to bridge these gaps found in the literature by examining the effect of leadership styles namely, transformational leadership style and transactional leadership style on employee's readiness for changes. Furthermore, it aims at examining the moderating effect of employee's commitment towards changes on the mentioned relationship.

1.3 Research Questions

The questions of the present study are outlined as follow:

1. How does transformational leadership affect employee's readiness to change significantly?
2. How does transactional leadership affect employee readiness to change significantly?
3. How does employee's commitment towards changes play a role in altering the relationship between transformational leadership and employee's readiness to change?
4. How does employee's commitment towards changes play a role in altering the relationship between transactional leadership and employee's readiness to change?

1.4 Research Objectives

The current study aims to assess the following objectives:

1. To determine the effect of transformational leadership on employee's readiness to change.
2. To determine the effect of transactional leadership on employee readiness to change.
3. To examine the moderating effect of employee's commitment towards changes on the relationship between transformational leadership and employee readiness to change.

4. To examine the moderating effect of employee's commitment towards changes on the relationship between transactional leadership and employee readiness to change.

1.5 Significances of the Study

There is a considerable amount of research on readiness to change. Nevertheless, empirical work in Yemen is still limited even though Yemen is keen to enhance the public sectors, as evidenced by its initiatives such as the implementation of administrative and financial reforms. Moreover, Yemen participated in international agreements with international organizations such as the International Monetary Fund and World Bank. Therefore, providing some insight into what factors determine the readiness to change among employees in the public sectors would provide a clear picture about this issue in Yemen, including the role of the commitment towards changes on the relationship between leadership behaviours and readiness to change, which is considered empirically significant. Moreover, this study also helps in assisting the policy makers of Yemen through formulating policies advocating in supporting the public sectors to change successfully with the competitive environment. Altogether, this shows how this study is empirically significant.

In addition, contributing towards the body of knowledge of how employees are ready to changes in the public sectors of a least-developed country, such as Yemen, is another contribution. Furthermore, the study provides additional evidences regarding the moderating effect of the employees' commitment to changes. By doing so, this

would help the management to be aware of this issue. Furthermore, a good comprehension of the leadership behaviours, commitment towards changes and readiness to change would help strengthen the public sector in Yemen.

Another contribution of this study is through attempting to redirect future researches toward studying the readiness to change, which is achieved through incorporating more than one dimension. In other word, by doing so, exploring different aspects of readiness to change is added to the existing literature. The present study also adds to the growing knowledge of leadership styles by investigating both transformational and transactional styles on employees' readiness to change, this gap is still remaining in the leadership literature. In particular, this study would fill the gap in recent empirical studies on readiness to change, by examining whether or not commitment towards changes moderate the relationship between leadership styles and readiness to change. Previous studies have examined readiness to change in developed countries, but this issue has not been empirically proven among the least-developed countries (Foster, 2010).

In the leadership literature, many studies have examined each leadership style as a single dimension and multidimensional construct on different dependent variables. However, only a few studies measure the effects of leadership styles as a single dimension on readiness to change. This study calls for to contribute to the methodology by examining the effect of each of leadership styles on readiness to change. Therefore, this study provided a robust finding in investigating the overall

dimensions of leadership styles which results in a deeper understanding. Moreover, the study brings together the two leadership styles: transformational and transactional as well as commitment towards changes as a moderator to enrich the leadership literature as such entities are not existent.

1.6 Scope of the Study

This study attempts to examine the relationships between leadership style and the employees' readiness to change. It examines the influential role of commitments toward changes as the moderator on the mentioned relationship. Based on the practical issues in Yemen, this study has primarily focused on public sector in Yemen, which have undergone major financial and administrative reform since 1997. Specifically, a questionnaire was distributed to the employees who are currently working in four ministries of the Yemeni public sector namely Ministry of Education, Ministry of Finance, Public Work and Highway Ministry and Ministry of Health. This is because these four ministries are highly involved in administrative and financial changes in Yemen (Gelaidan & Ahmad, 2013). The unit of analysis for this study will be the individual level. Furthermore, this study is a hypothesis testing study. To test the hypothesized relationships, Smart PLS was applied.

This chapter elaborates the importance of changes within an organization and how employee's readiness to change contributes in changing initiatives. The issues related to the current study is also discussed, such as the effect of leadership styles on employees' readiness to change in the least-developed countries and the absence

of examining the moderating effect of commitment to changes on employee's readiness to change. The questions arise in parallel with the stated objectives of the study. Last but not least, the rationale behind determining public sectors and employees of the four ministries as the unit analysis of the study is stated. Finally, the significance of the study is explained.

1.7 Summary

This chapter explains background of the study which embraces the significances of the changes, the role of leaders on the changes and employees commitments towards changes. It elaborates the importance of changes within an organization and how employee's readiness to change contributes in changing initiatives. The issues related to the current study is also discussed, such as the effect of leadership styles on employees' readiness to change in the least-developed countries and the absence of examining the moderating effect of commitment to changes on employee's readiness to change. The questions arise in parallel with the stated objectives of the study. Last but not least, the rationale behind determining public sectors and employees of the four ministries as the unit analysis of the study is stated. Finally, the significance of the study is explained.

1.8 Definitions of the Key Terms

Transformational Leadership

Generally, transformational leaders are charismatic, inspirational, intellectual and individualized consideration (Bass, 1985). Transformational leadership style can be defined as the one which leads to positive changes due to its energetic and enthusiastic obtaining personal objectives (Gelaidan, & Ahmad, 2013).

Transactional Leadership

The transactional leadership behaviour sets up the foundation for identifying clearly and definitely the expectations, negotiating contracts, clarifying responsibilities and providing the rewards and recognitions to obtain the stated organizational goals and expected performances between both the leaders and their subordinates (Bass, 1985). It satisfies the needs of subordinates in the form of recognitions or exchange or rewards when they achieve the stated objectives or reach the leaders' expectations (Bass, 1997; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). In brief, this type of leadership focuses mainly on the give and take concept based on achieving the organizational objectives direction (Hussain Abbas, Lei, Haider, M. J., & Akram, 2017).

Employee's Commitment towards Change

Employee's commitment towards change is defined as "a force (mind-set) that binds an individual to a course of action deemed necessary for the successful implementation of a change initiative" (Herscovitch & Meyer, 2002 p.475). According to Porter *et al.*, (1974), commitment could be divided into three factors (i) a strong belief and acceptance of the organization's goals and values, (ii) a willingness to exert considerable efforts on behalf of the organization and (iii) a definite desire to keep organizational memberships.

Employee's Readiness to Change

Armenakis, Feild and Harris (2007, p.235) defined employee's readiness to change as "a comprehensive attitude that is influenced simultaneously by the content (what is being changed), the process (how the change is being implemented), the individuals (attributes of those being asked to change), and the context (attributes of the environment that the change is occurring in). It is the cognitive condition including beliefs, attitudes and intentions related to a change effort (Armenakis, Harris & Mossholder, 1993). The organization accepts changes and the resistance to them are low only if the readiness for such changes exists. To elaborate more, the employees should be ready for the changes unless they possibility of failures become high and it leads to negative reactions among employees such as sabotage, absenteeism and output restrictions (Soumyaja, Kamalanabhan, & Bhattacharyya, 2011). Moreover, the conflict between the leaders of organizations and their followers may be encountered (Faghihi & Allameh, 2012).

1.9 Organization of the Thesis

The current thesis comprises five chapters. Chapter one presents the introduction chapter, consisting the background of the study, problem statement, research questions, the objectives of the research, the significances of the study, the scope of the study and the organization of the thesis.

Chapter two reviews the changes and readiness to change. It also presents a review on the relationship of the main variables, leadership styles and commitment to changes with readiness to change among the employees in the public sector in Yemen. Chapter three describes the methodology of the study, including research design, research framework, hypotheses development, population and sampling, unit of analysis and measurement, questionnaire design, pilot study and data analysis techniques. Chapter four presents the data analysis and the key findings of the study. Finally, chapter five highlights the implication of the findings and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses on the overview of change including change's definitions and changes in organizations. Then, it highlights readiness to change and its concepts, factors and its existence in organizations. The leadership styles theories and readiness to change link is also explained. Finally, commitment towards changes as a potential moderator and underpinning theory are described.

2.2 An Overview of Yemen

Yemen, officially known as the Republic of Yemen is a country spanning at the south western corner of the Arabian Peninsula in Southwest of Asia. Yemen was rated as one of least developing countries and the poorest in the Arab region (Al-Batuly, Al-Hawri, Cicowiez, Lofgren, & Pournik, 2012). The people in Yemen live under the poverty line which rose to 54.5% in 2012 from 42% at the end of 2011 (Engelke, 2012).

Republic of Yemen currently is in big conflict and violence as a result of decades of civil war and other reasons such as political tensions in region around, capturing the resources by the elite and corruption, as well as tribalism behaviour and attitudes (Al-Ahmadi, et al., 2018). The population is estimated by World Bank more than 28 million. As 3.6% percentage Yemen has the highest growth of population in the

world (Bennett, Duncan, Rothmann, Zeitlyn, & Hill, 2010). It was risky to reach 14.6% of the unemployment in 2009 (World Bank, 2015a), and it is predictable to worsen because of instability status since the 2011 crisis until now in 2018.

In 2012, Yemeni economy was dependent on the exporting of oil, which was evaluated to be about 25% of the GDP and spread to cover 70% of government revenue. 7.9% of GDP was estimated to constitute almost through agriculture sector and the 40.6% of GDP covers by industry sector according to the World Factbook (2012). Yemen was one of the Arab Spring countries in early 2011. Between 2011 and 2014 several dramatic political are followed and critical events had occurred effected the security, then in March 2015, Yemen fell into military conflict completely. According to (Al-Ahmadi, et al., 2018), the contraction of economy was about 28 percent of gross domestic product (GDP) in 2015.

Political variation that have been experienced since 2010 in some Arab lands in north of Africa and the Middle East as a result of internal crisis have subsequently call for changes in most of the existing organizations. The needs for organizational change have hit many of the organizations in these countries. Bovey and Hede (2001) stated that, when faced with a major organizational change, people normally go through a process of reaction which involves four different levels: resistance, commitment, exploration, and initial denial, (Bovey & Hede, 2001; Reynolds, 1994). According to O'Connor (1993) individuals have been known to unconsciously oppose changes. Changes affect employees' behaviours and attitudes because they are shifted from known circumstances to an unknown one, which leads to anxiety, uncertainty, and strain among employees. In the contemporary environment, it is

normal for organizations to undergo continuous changes in order to sustain its competitive advantage (Mossholder *et al.* 2000; Smith, 2005). This is also the case for the public sector; there is a need for the government to redesign structure in some organizations and implement several changes in other continuously in order to achieve their goals.

Khassawneh (2005) suggested that Yemeni organizations need to respond to the call of changes swiftly in order to sustain themselves. The employees of the Yemeni public-sector organizations are suffering due to low income, low security, low job justice and low involvement/participation, which lead towards low empowerment and low job satisfaction. Employees are unable to fulfil their needs that are harmful to the changing and development processes, not only among the followers but also among the leaders (Gelaidan & Ahmad, 2013). Based on these reasons, the Yemeni public sector's employees have low commitment levels and are not ready to change. Moreover, corruption is also one of the barriers towards employee's readiness to change. The popularity of corruptions known to be associated with the Yemeni public sectors are a one of the critical factors for the changing failures in Yemen (Gelaidan & Ahmad, 2013). All these issues lead to lower level of commitments as well as low level of readiness to change among employees in the Yemeni public sector.

2.3 Changes

In these fast moving and modern era, there is a need for all organizations to carry out changes, for example, restructuring, merging and acquisitions, downsizing and

rightsizing, and process re-engineering (Ahmad, Francis & Zairi, 2007; Martins, 2008). On other words, a change planned focuses on the development of an organization. Changes are inescapable and acknowledged due to its importance in solving problems and challenges of an organization, which are results of competition, expansion, advanced technology, product quality maintenance, mergers, new business ventures, rapid growth, new opportunities, innovations, new leadership and management approaches, and/or employee efficiency enhancement (Madsen *et al.*, 2006).

According to Huber and Gliick (1993), change is a way of redesigning work related elements comprising of administrative goals, or its policies or styles, so as to address some organizational problems or to implement better, stronger and more efficient organizational practice, or to seek equilibrium between the organization and the environmental influence on it. It is expected that organizations react swiftly to environmental demand regardless of their nature of business so as to fulfil their consumers' needs (Burke, 2002; Michaelis, Stegmaier & Sonntag, 2009; Westover, 2010). Need for changes may be warranted by an external or internal factor that calls the attention of the organization. According to Barnett and Carroll (1995) internal constructs are associated with the growth of the organization while external factors are concerned with market and institutional transition. Employees view organizational change with various perspectives, some perceived that it can bring about success while others perceived it to be a risk. In line with the fact, organizations presently need to adjust to the demand from the global and domestic markets (Herold *et al.*, 2008; Martins, 2008).

Devos, Buelens, and Bouckennooghe (2007) suggests that a way of classifying changes are in categories, of what it addresses, such as, power distributions, cultures, functions, or processes. Changes in functions might include restructuring departments (Daft, 2004). A change in power distribution may involve steps to change the responsibilities of people in decision making and informational flow (Pettigrew, 1973). Culture changes might involve changing employees' thoughts and behaviours (Schein, 1996). A process change might include restructuring the tasks, for example, task involving documentation of policy quotes in an insurance company (Hammer & Champy, 1993). All of these types of changes, if strategized properly can lead to the success of an organizational conduct. Although this method of classification can be beneficial by helping in having a focal point for the changes, but at the same time, it might be misleading due to the fact that changes in a section of an organization will affect other sections (Banathy, 1992).

Changes have also been classified based on its complexity, categorized as the first-order, second-order, and third-order. First-order change prioritises development because its target is to improve what already exists. Terminologies such as alpha, fine-tuning, evolutionary change and incremental are also used in the first-order change. Hoag *et al.* (2002) and Seo (2003) suggested that this type of change is normally implemented in one section of the organization. The aim for this type of change is to redesign the organization internally for better performance (Dunphy & Stace, 1993). In line with the view that this kind of change is internally targeted and also the scope of change is limited to just one section, the benefit from this kind of change will also be limited. Adding new components to the present marketing strategy is an example of the first-order change.

According to Adams (2003), Arndt and Bigelow (2005), and Seo (2003), second-order change includes some basic and non-reversible changes in an organization's structure. Terminologies such as beta, reorientation, corporate transformation, modular transformation, and revolutionary changes are also used to refer the second-order change. For instances, second-order organizational change can be major departmental restructuring and large-scale change or reengineering (Arndt & Bigelow 2005; Dunphy & Stace, 1993). Second-order organizational change involves redesigning the culture, nature, and believes in an organization (Movva, 2004). This kind of change is described to be non-reversible by Boyce (2003), due to the fundamental redesigning involved.

Mantel (2001) and Seo (2003) defined third-order organizational change as a kind of continuous change. Mantel (2001) defined it as “a complex and continuously fluctuating process where the nature of the organization is under constant renegotiation”. Additionally, these three kinds of changes request different demands from members of the organization and the organization itself.

Literatures have suggested that third-order change is more extensive than that of second-order, which is more extensive than that of first-order Bartunek and Moch, 1987). For example, the number of people and systems affected can increase from first- to second- to third-order changes. Alternately, second order change also can represent a deeper level of change. For example, second order individual change represents a fundamental paradigm shift on an individual level. These differences in scales require changes in the level of communication and participation, for the

change to be effective (Hall, 1993). However, these gradations can be misleading by suggesting that the first-order change is easy. Historical-wise, any type of changes is difficult to plan, navigate, and sustain, regardless of the orders.

2.4 Change in Organizations

There is a numerous change management need for organizations to continually change or redesign their strategies in sustaining the organization and withstanding the challenges from the environment (Tudor & Bisa, 2015). Changes as an industry-wide phenomenon affect all organizations. While the form or outlook of the changes faced by organizations may differ, all organizations need to deal with it accordingly. According to Mourier and Smith (2001) organizational change is can be defined as the activities related with many components including planning, designing, implementing and internalizing tools, procedures, routines, processes, or systems which involve people to carry out their jobs in a different way. Implementing changes are not easy due to an excess of organizational changes failed to accomplish its target (Probst & Raisch, 2005). Most attempts to implement changes within or between organizations are highly unsuccessful, and estimations in the past have indicated a failure rate of about 70-80% (Burnes & Jackson, 2011). These examples are both illustrated in practice and academic research (Higgs & Rowland, 2010; Pettigrew *et al.*, 2001).

According to Cummings and Worley (2005), changes involve redesigning organizational processes, approaches, strategies, structures, or cultures, in order to sustain the organization. Changes also involve implanting new opportunities with

respect to the ability and need of the organization. Practitioners and researchers are interested in knowing ways to uncover hidden circumstances associated with organizational change.

In an organization, a change is the transition from the present state to a desired level. Systematic or explicit approaches to change are required when some aspects of the organization are seen not to be appropriate in meeting demands (Chen, 2007). According to Seo (2004), some of these aspects can be strategic orientation, governance systems, and firm's range of models, values, or core processes. Dunphy (1996) claimed that it is clear that these aspects need continual remodelling or adjustment, however, it is wise to note that a "best practice in one period may be worst practice at another". Researchers like Chen (2007), Griffin, Parker, and Neal, (2008) and Seo (2003) are of the opinion that changes can be seen as the differences between achieving and surviving effectiveness over a long term in case of stagnation or declining. Although changes could add to the betterment of an organization, it can also result to a high disruption (Amburgey *et al.*, 1994).

Planned changes are unavoidable for an organization to survive in the long-term. These changes that are planned should be focused on making the organization more efficient and effective in the contemporary environment (Chen & Wang, 2007). In surviving in current era challenges, and fulfilling the public requirements, it is crucial that organizations, particularly the public sector has to effectively respond internally to development, expansion, and growth even if it is internally or in external environment. Need for changes may be warranted by an external or internal factor that calls the attention of the organization. According to Barnett and Carroll

(1995) internal constructs are associated with the growth of the organization while external factors are concerned with market and institutional transition.

These external and internal factors may include world globalization, business changes, economical changes, and new technologies (Gelaidan *et al.*, 2018). Similarly, Herold *et al.* (2008) indicated that the inability of an organization to keep up with the day-to-day changes would result in the incapability of the organization in maintaining its marketplace's position. Hence, changes are crucial for organizations planning on promoting its market position and accessibility. In the contemporary business environment, continuous successful changes are essential for organizations to sustain its competitive advantage.

The process of implementing a change in an organization must be aimed at maximizing employee's readiness and also to maximize the effectiveness of the change effort. Organizational change may be in the form of moving from one stage to another or it may be concerned with restructuring (Chonko, 2004). According to Barnett and Carroll (1995) an organizational change is a noticeable transformation of an organization between two periods. Bennett (2004) claimed that no matter how great or little an organizational change must be targeted on modification, variation, improvement, or alteration of something. Employees view organizational change with various perspectives, some perceived that it can bring about success while others perceived it to be a risk.

The levels described are helpful for suggesting the nature of changes and the number of systems and people that must be addressed, but these levels could lead one to miscalculate the skills needed to execute the changes. Furthermore, deciding

the appropriate level of change can be difficult for an organization (although sometimes the nature of change is decided already due to unavoidable events or circumstances). According to Mantel (2001), There appears to be a tension in the literatures and among practitioners regarding the focus of the studies, either the focus should be on stability and somewhat infrequent (episodic) change (characteristics of first- or second-order change) or on continuous change with somewhat infrequent moments of stability (characteristic of third-order change). The debate centres on key factors, such as the organization's size and industry's characteristic. For example, larger or older organizations tend to change infrequently, whereas smaller firms or those firms in dynamic industries tend to require more frequent (or even continuous) changes (Amburgey *et al.*, 1994). The organization's goals at a particular point in time also should influence the choice of what level of change is needed. In summary, it is argued that the needs of both internal and external stakeholders should be determined well based on identifying the change level needed and the time which the change should be carried out.

Accordingly, organizational change has been defined as any development or activity that results in changes in the way that an organization normally runs (Huber & Glick, 1993). These changes are structured by the management in the organization. Some changes might be minor changes while others might be major enough to transform the whole organization (Clark & Soulsby, 2007).

In conclusion, if the outcome of an organizational change is successful, it can establish a high degree of passion towards the organization. When the outcome of an organizational change is unsuccessful; it results in frustration, anxiety, feelings of

uncertainty, and alienation (Ashford, 1988; Holt, Armenakis, Feild, & Harris, 2007). The change agents are expected to exhibit a high degree of skills to cope with the challenges of organizational change process.

A successful change effort leads towards a new standard being established in the organization, prioritizing in profits' and productions' enhancement through strategic and structured operations (Bigelow & Arndt, 2005; Chen, 2007). It is then essential for practitioners and researchers to identify predictors of employee's readiness in understanding employees' perceptions, intentions, and beliefs during the process of change's implementation.

2.5 Readiness to Change

Employee beliefs and attitudes towards a particular organizational change mostly determine the success of the organizational change (Beer & Walton, 1990). The findings of Cunningham *et al.* (2002) indicate that employees with fascinating jobs are found to show more readiness for organizational change and possibly will be active in the changing processes. Numerous change management literatures have identified the impact of organizational commitment on the course of changes (Vakola & Nikolaou, 2005). While Woodward *et al.* (1999) found that a lot of employees perceive organizational change as a stressful process. According to Lau and Woodman (1995), employees could repel or accept changes based on their view about the changes; perceiving whether the changes are a threat or benefit. In addition, because of the high risks involved in most organizational changes,

employees do not show willingness until they have more convincing facts about the benefits of the changes. It is therefore required that leaders are conversant with those factors that determine employees' readiness to change. Leaders are also expected to strategize and plan options and actions that could increase employees' commitments towards organizational changes.

Vakola and Nikolaou (2005) stated that the attitudes of the individual reflect his/her tendency to feel, think or behave in a positive or negative manner towards the object of the attitude. A study carried out by Eby, Adams, Russell, & Gaby (2000) investigated how positive behaviours and attitudes can improve changes' outcomes. Employees can either be excited, happy, angry, or fearful, when faced with a change proposal (Vakola *et al*, 2003). Individual's views toward the changes primarily affect organizational change efforts. To nurture positive employees' response to changes are important because of their involvement in the changes. Armenakis & Bedeian (1999) stated that "as open systems, organizations depend on human direction to succeed".

According to Martin *et al*. (2005) a negative employee's response to organizational changes may lead to anxiety, uncertainty, lower efficiency, frustration, and lastly a decline in output. On the other hand, a positive employee's response will lead to employee's support of the change which subsequently leads to high performance, high commitment, low absenteeism, and low turnover (Desplaces, 2005). Therefore, in change management, human factor is seen to be very important, dominant, and complex but necessary in attaining a successful change process (Armenakis *et al*.,

1993; Smith, 2005). According to Weber and Weber (2001), employees' attitudes, beliefs, and perceptions are crucial in the process of an organizational change. Dirks, Cummings & Piece (1996) stated that individuals only support the change process when it fulfils their needs and desires. Alvi and Ahmed (1987) also suggested that employee's positive responses could be attained by providing their fundamental needs such as psychological needs.

2.5.1 Definition and Dimensions of Readiness to Change

Benzer *et al*, 2017 and Kelly *et al*, 2017 affirm that in order to assume a positive perception about an organizational change, employee should be able to first acknowledge the present state of the organization and its environment, for the employee to understand the past and potential future goals that could be obtain through the changes. Kelly *et al*, 2017 argued that to addressing each attribute of readiness every organization has its dynamics which is unique and away some complex and it has a limited success when developing individual prescriptive approach.

Readiness to change reflects organization members ' intentions and attitudes towards a change, as well as the organization's capability to carry out the changes successfully (Faghihi & Allameh, 2012). Rafferty and Simons (2006) and Susanto (2008) defined readiness as an intention, behaviour, attitude, and belief in respect to the degree at which the changes are required and the organizational ability to successfully implement it. According to Bernerth (2004), it is the perception of an individual about the change that indicates the readiness to change one's thought.

Moreover, according to Amenakis, *et al.* (1993), readiness to change is a cognitive precursor to resistive or supportive behaviour to a changing process.

A numbers of studies have shown that employee receptiveness and willingness are crucial for the organizational change efforts to be successful (Madsen *et al.*, 2005; Rafferty & Simon, 2006). Therefore, proper interaction with employee is needed before, during and after the changing process. Positive attitudes of an employee could support the success of organization's goals, while negative attitudes could lead to negative impacts such as rejection and opposition. These negative impacts may subsequently lead to failure of an organizational change process, losses in term of cost and time which could affect the reputation, and development of the organization (Smith, 2005). Researchers such as Bernerth (2004), Hanpachern, Morgan and Griego (1998), (2005), Holt *et al.*, (2007) and Madsen *et al.*, focus on employees' readiness predicting factors that are impacting their support in organizational change process.

Judge *et al.*, (1999) focused on individuals, when they studied causes for changes' success in organizations. Findings from Cunningham *et al.*, (2002), Eby et al., (2000), Madsen *et al.*, (2005), and Rafferty and Simons (2006) have shown that factors such as commitment, culture, belief, change's agent role, and proper process are associated with employees' readiness. These factors can be categorized based on individual, workplace, psychological, cultural, social, and environmental. Hence, researchers later divided these predicted factors into two parts; individual and workplace factors. According to Displaces (2005) and Ilgen and Pulakos (1999) the degree of individual and workplace factors might develop a positive attitude towards

readiness to change. Amenakis *et al.* (1993) suggested that change's readiness involves changing employees' consciousness about the need for the change. At the beginning of a plan to implement a change, individuals evaluate the essences of the change so as to know how they might be affected by the change. By examining a change proposal, individuals might then decide either to support or reject it (Bovey & Hede, 2001; Self, 2007).

According to Smith (2005), individuals are important predictors toward changes because they are the stakeholders of the changes, deciding either to accept or reject the changes. Hence, it is important to examine individual's readiness at the beginning of any changes' plan. When employees are faced with a major organizational change, they normally go through a process of reaction in order to protect themselves from the change, if they thought it will cause damage (Hannon *et al.*, 2017). The effect of changes on individuals can be of different forms regardless of its type. Degree of resistances or acceptances usually depend on the kind of changes, for instance, resistance towards technological change is usually less than that of social change.

It is also argued that readiness for changes are assumed to influence the degree of success with which changes are implemented (Faghihi & Allameh, 2012). Change also can be considered as something that individuals can see from different perspectives. Consequently, the attitude towards changes (change readiness) also differs per individual. Organizational Change has a vital psychological effect on the mind of individual. It can be either a source of threat or hope which things may get worse or better based on the attitude of individual (King Whitney Jr. 1967 cited in

Simpson, 1988, p.100). Lyons *et al.* (2009) define it as a perception indicating ones attitude towards a change initiative. It is distinguished from intentions, which represent action-oriented views in accordance with some goals.

Similarly, Jones *et al.* (2005) explained readiness for changes as the degree at which employees perceived the need for organizational changes, which can also be interpreted as the degree to which the changes are accepted. The beliefs that employees have about whether they think they will be able to implement the proposed change, whether they perceive that the intended change is suitable for the organization, whether they perceive that the leaders are committed to the intended change, and finally whether they see the proposed change as being beneficial to organizational members. These beliefs are grouped in four dimensions known as change-specific efficacy, appropriateness, management support and personal valence. This view on readiness for changes as a multidimensional concept was confirmed by the quantitative research they conducted.

Bouckennooghe, Devos and Van den Broeck (2009) perceived readiness for changes to be a multidimensional concept. However, Holt *et al.* (2007), Jones *et al.* (2005), and Lyons *et al.*, (2009) only mentioned about cognitive beliefs. Bouckennooghe *et al.* (2009) stressed that readiness for changes should also include an emotional and intentional dimension. This is in line with a meta-analysis for reactions change recipients to a change in organization conducted by Oreg, Vakola and Armenakis (2011) and its definition of readiness to change will be applied in this research study. Formulated as the outcome of their analysis of all the quantitative studies in this field within the past 60 years, Oreg *et al.* (2011) presented a model of antecedents, change

reactions, and change consequences. The three dimensions (cognitive, emotional and intentional readiness) together form the change reactions, which is illustrated as a mediator in the model. Concepts such as management support and participation are seen as antecedents influencing the readiness for changes of the employees, which consequently effects their organizational commitments and performances.

An important point to be examined when defining readiness for changes is the specific choice for the positive concept of change readiness instead of using the more negative label of change resistance. There is an ongoing literature discussion about these two concepts (Coetsee, 1999; Piderit, 2000). Which one should be used? And can they be seen as two ends of the same continuum? In this study the perspective of Piderit (2000) is followed and both concepts are indeed seen as opposite poles of the same spectrum. The 'positive' pole which is the readiness for changes is followed, since focusing on resistance can have negative effects. Piderit (2000), amongst others, stated that resistant behaviour of employees could be based on initially positive intentions, which are neglected when one focuses too much on resistance. In other words, critical feedback of employees that otherwise can make a change program better, is not used and/or disregarded. According to Cummings and Worley (2005), the use of positive linguistics can, in contrast, work out as a self-fulfilling prophecy, leading to a higher readiness for changes.

Besides the most common change management theories mentioned, a lot of research specifically dedicated to the topic readiness for changes, also support the statement that change's readiness is a very crucial factor for organizational change to be

successful (Lyons *et al.*, 2009). According to Holt *et al.* (2007) change readiness indicates to a situation where employees accept or resist change programs adopted by their organizations. Beckhard and Harris (1987, p92) stress that in any change imitative; individuals with a high commitment are required as the catalyst for the changes to be implemented. In conclusion, the words of Hendry (1996, p.624) says it all; “Scratch any account of creating and managing change and the idea that change is a three-stage process which necessarily begins with a process of unfreezing will not be far below the surface.”

2.5.2 Change Readiness Factors

There is a number of literatures that discuss about employee's readiness in relations with individual and workplace factors (Cunningham *et al.*, 2002; Elias, 2009; Holt *et al.*, 2007; Madsen *et al.*, 2005; Rafferty & Simon, 2006; Weber & Weber, 2001). However, the effect of both types of factors can be seen through employees' beliefs, emotional exhaustion, perceptions, and attitudes. Individual factors are linked with social and personal factors like belief, active problem solving attitude, autonomy, self-efficacy, and demography (Cunningham *et al.*, 2002; Madsen *et al.*, 2005; Peach *et al.*, 2005; Weber & Weber, 2001). Workplace factor involve the organizational culture, services, and environment. Armenakis and Harris (2002), Cunningham *et al.*, (2002), Madsen (2003), Madsen *et al.*, (2005), Miller *et al.*, (2006), Rafferty and Simon, (2006), Wanberg and Banas (2000) confirmed that organizational commitments, social relationships, appropriateness, knowledge and skills, and wellness, are all related to workplace factors.

It is important that the organizations first understand what causes readiness for a change so that organizations can prepare its employees to be ready for new status (Miller *et al.*, 1994; Cummings & Worley, 2001; Madsen, 2003; Madsen *et al.*, 2006; Madsen *et al.*, 2005; Johansson, Åström, Kauffeldt, Helldin, & Carlström, 2014). These factors are usually called readiness factors (Madsen, 2003; Madsen *et al.*, 2006; Madsen *et al.*, 2005), antecedents to change (Rafferty & Simons, 2006), or predictors of openness to change (Chawla & Kelloway, 2004; Jones *et al.*, 2005; Piderit, 2000; Wanberg & Banas, 2000; Weber & Weber, 2001).

According to Porras and Patterson (1979), variables selected in studies regarding changes are arbitrary. Commonly in past studies shows those manipulative variables are practiced in researches regarding changes (Porras & Robertson, 1987). Armenakis, Harris, and Mossholder (1993), stated that the apparent need for changes, the capabilities of an organization in implementing the changes, and ability of individuals to partake themselves in the changing process are three important factors in changes' issues. In nurturing readiness for changes amongst studied participants, three strategies were suggested, emphasizing on the cognitive influences, individually (Walinga, 2008). These strategies includes; persuasive communication focuses on oral and written to convey the need for changes, active participation, based on the Social Cognitive Theory by Bandura (1977) and Theory of Reasoned Action by Fishbein and Azjen (1975). Up on that to determine the need for changes it is necessary to develop and allow access for participation on changes, and external sources, and informational sources. These studied strategies laid the foundation for readiness for changes' researches. Regardless, the impact of all the

strategies on the readiness for changes was unverified as there were no empirical evidences.

In 1999, Armenakis and Bedeian suggested that, in initiating readiness, five crucial organizational components are necessary, which were enlisted in their proposal of the comprehensive readiness for change model. These components include personal valences, discrepancy, appropriateness, principal support and self-efficacy. Through emphasizing the important aspects of cognitive for changes, leaders and change's stakeholders acquired a strong rational in taking more proactive steps to increase the rate of the change's success (Bernerth, 2004). Through a case study in an organization that engage recently a change effort examining these five components, Bernerth managed to validate the model which was previously unsupported through lack of empirical evidences. Regardless, Bernerth's validation of the model brought no significance, statistically, as it was just conducted to practically test the previous study's concept without statistically proven the concept. Further progress on the concept was delivered by Eby *et al.* (2000), by testing the variables empirically, on the acceleration they provided towards readiness for changes. The findings from the study indicated that at an individual level, choices of working in teams were related to low level of readiness, while at workgroup level, willingness to work with teammates and trust were related to a high level of readiness to changes. Individuals who perceived organizational rules positively have higher willingness for changes. The variables are work groups and job attitudes, individual attitudes and preferences, and contextual variables

In this context compare with Bernerth case study Cunningham *et al.* (2002) performed a research in a health-care organization that was trying to initiate an organizational change. Samples of 654 staffs were randomly selected. The surveys were conducted twice, one before the proposal to redesign the organization was publicized, and again a year after the first survey. Findings from this study show that employees in jobs need high demands or high decision latitudes were reported to have high degree of readiness for change. Additionally, employee with an active approach to problem solving and high self-efficacy also displayed high degree of readiness. Findings from another study carried out by Rafferty and Simons (2006) indicated that self-efficacy; trust in colleagues and leaders, and logistics and system support show strong positive relationships with readiness for change.

Hanpachern *et al.* (1998) led a study investigating the relationships of margin in life (MIL), including work and non-work aspects and some demographic variables of readiness for change. They defined MIL as the freedom vitality a person need to respond to new challenges and must have it. Their investigation was based on the Theory of Margin in which they claimed that employees with more MIL have higher possibility for high degree of readiness for change. The study concluded that management-leadership relation, increasing power and decreasing load increases readiness for change. Madsen *et al.* (2006) carried out a study and found significant correlations between MIL and organizational readiness for changes. In 1992, Prochaska and DiClemente introduced the trans-theoretical model, which later became a popular model in the domain of health behaviour change.

According to Madsen (2003), the model is called trans-theoretical because it incorporates cognitive, motivational, relapse prevention, and social learning theories. The model predicts, as noted by Morera, Johnson, Freels, and Parsons (1998), that organizational readiness in adopting health behaviour is influenced by the view of individuals among change returns whether it is benefits or it is a cost. The model was updated by Prochaska *et al.* (1994), and they suggested that contemplation and preparation are the prerequisite factors to establish readiness for changes. McNabb and Sepic (1995) observed that a higher rate of job satisfaction and job performance with lower levels of anxiety diffuse high change readiness among individuals within organizations. They noted that higher anxiety abates performance and reduces job satisfaction. In other words developing an environment filled with trust might be an important influence for a successful organizational change (Weisbord, 1992). Trusts can increase certainty and assurance, thereby reducing guess and worries (Weber & Weber, 2001). Furthermore, Martin (1998) suggested that when leaders build high level of trust in their employees' mind, employees would develop higher respect for the managerial values and would support organizational changes.

Some researchers have shown that an organizational change success rate can be improved when employees are supported during the change process (Chonko *et al.*, 2002; Schalk, Campbell, & Freese, 1998). When employees are supported for their ideas, they are likely to show high degree of willingness to participate in the changes. Also when employees are motivated with rewards, they are possibly more active in the support of the change process (VanYperen & Van den Berg, 1999). Findings also show that conducive workplace for innovations create a receptive environment for an organizational change (Weber & Weber, 2001; Zammuto &

O'Connor, 1992). Organizations in which employees are usually involved in planning and decision making would experience employee's readiness and commitment to organizational changes.

2.5.3 Employee's Readiness in Organizational Change

Employees readiness for change is an important factor for the success of organizational change ((Lyons, *et al.*, 2009; Faghihi & Allameh, 2012; Al-Hussami, Hammad, & Alsoleihat, 2018; Gelaidan *et al.*, 2018). Because of the urgency need of change, organization needs to structure the necessary processes in carrying out the organizational changes. Researchers such as Vokala *et al.*, (2004), Peach *et al.*, (2005), Rafferty and Simon (2006), Holt *et al.*, (2007), Erturk (2008) and Cinite *et al.*, (2009) have focused on change's management. Aspects of an organizational change were analysed and examined based on some concepts, models, theories and empirical studies and results have shown that employee's readiness have been found to be more related to the implementation of organizational changes (Armenakis & Harris, 2002; Cunningham *et al.*, 2002; Eby *et al.*, 2000; Madsen *et al.*, 2005; Rafferty & Simon, 2006). Researchers such as Chawla and Kelloway (2004), Jones *et al.*, (2005) and Cinite *et al.*, (2009) have argued that organizational success relies on employees who are constantly motivated to support changes' plans.

According to Weber and Weber (2001), employee as an individual is sensitive and complex therefore, employees' attitudes, beliefs, and perceptions have been seen as crucial factors for organizational success. Based on this fact, experts have emphasized on the importance of investigating factors that are likely to determine

employees' readiness to a change process (Cinite *et al.*, 2009; Cunningham *et al.*, 2002; Erturk, 2008; Madsen *et al.*, 2005; Rafferty & Simon, 2006).

There are many of researches in the field of change management that are targeted on likely readiness predicting factors. Studies have been carried out on predictors like job knowledge, participation, logistic and system support, job demands, social relations at workplace, job skills, organizational commitment, job satisfaction, change efficacy, communications, and other factors, have been found that there is a relationship between these predictors and change process and it might be effected significantly (Chawla & Kelloway, 2004; Cunningham *et al.*, 2002; Eby *et al.*, 2000; Madsen *et al.*, 2005; Peach *et al.*, 2005; Rafferty & Simon, 2006; Wanberg & Banas, 2000). The effects of these predictors were found to be positive, through enhancing readiness and reducing employees' resistances. However, it is necessary to examine more employees' readiness predicting factors with different relationships (Armenakis *et al.*, 1993; Bernerth, 2004; Cunningham *et al.*, 2002; Cinite *et al.*, 2009; Hanpachern *et al.*, 1998; Madsen *et al.*, 2005; Rafferty & Simons, 2006).

Armenakis and Harris (2002) discovered that five factors were essential in creating readiness for changes; which are personal valence, discrepancy, efficacy, appropriateness, and principal support. Bernerth (2004) supported these five factors and added that they can serve as catalysts for an organizational change effort success. Additionally, Bernerth (2004) suggested that by improving employee's readiness leaders would be proactive in implementing a change process effectively and that can be best achieved.

Madsen (2003) focused on the how employee's wellness impacts employee's readiness to accept, participate, and initiate in organizational changes. She claimed that improving emotional, physical, social, intellectual, and spiritual wellness can be an advantage for employee's readiness. Findings from the research show that organizations can improve their performances through enhancing employees' readiness for changes, based on the fact that employees' performance is associated with organizational performance.

Results obtained by the study of Madsen *et al.* (2005) showed that there are correlations between organizational commitment, employee's readiness to change and social relationships in organizations. Findings also indicated that there are also associations between readiness to change and employee's age, gender, social relationship, number of children, literacy level, and organizational commitment.

For the purpose of examining employees' readiness for organizational changes, Peach *et al.* (2005) utilized the theory of planned behaviour as the base for such studies. The target of this work is to identify the fundamental belief that distinguishes those intending and not intending to participate in changes. This study was carried out within employees in an Australian local government, comprising 149 respondents. Their beliefs, normative, and behavioural were assessed with respect to organizational changes. Significant variations were noticed among employees with intentions of moderate level, compared to employees with higher intentions, to participate in change's efforts, depending on the level of beliefs.

Using testable and theoretical individual model, Desplaces (2005) evaluated the subjective and objective aspects of changes as reflects the work setting variables (and possible changes) and collective action which distinguishable from another by the meanings kind and products socially attributed in place in the organization in relation to employees' readiness to organizational changes. Findings showed associations between both aspects and employee's readiness during changes, that is, both the subjective and objective aspects of changes indicate employee's readiness for changes.

Miller *et al.* (2006) carried out research on employee's readiness to changes, by applying three workplace's factors; work demands, work knowledge and skills, and relationship between management and leader. The research was carried out in four companies in Canada. Findings show that these factors had impact on employees' readiness for organizational changes and top management was found to be the highest indicator for organizational change readiness.

Rafferty and Simons (2006) researched possible readiness indicators for corporate transformations and fine-tuning in five organizations from Australia. Results showed that self-efficacy and trust in senior managers are significant in corporate transformation changes, trust in peers, logistical and system support indicate positive associations with readiness in fine-tuning transformations. Furthermore, partaking in changing process is less likely to be related to readiness in corporate transformation changes.

Holt *et al.* (2007) carried out an empirical study in Canada with 464 respondents from employees in four organizations, which include a combination of private and public companies. Findings from this work show that readiness is associated with appropriateness, self-efficacy, personal valence, and management support.

Erturk (2008) conducted a study with 878 public sector's employees in Turkey. Results from his research show that the trust in supervisors moderates the link between managerial communications and openness for changes using structural equation modeling. In addition, trust in organizational supervisors was discovered to partially link the relationship between participation and openness to changes.

Cinite *et al.* (2009) research was focused on public sectors. Through applying structural equation modelling techniques on surveys that were carried out in five public sector institutions in Canada, they discovered that perceived readiness for changes can exist in three aspects competency of change's agents, manager's support, and senior manager's commitments toward changes.

Alvi and Ahmed (1987) and Fatima (2002) have suggested that in developing countries, change methods adopted from western culture should be applied as a base of conduct in the local scene. Fatima (2002), who studied organizational changes in Pakistan, claimed that change's agents are required to exhibit both emotions and reasons. She claimed that vested interest for changes are more inclined on personal interest rather than professional or organizational interest. Additionally, she concluded that through display of vested interest by employees and organizations, it

becomes less difficult to manage actions and feelings, in realigning individual thoughts and desires with the requirement for organizational changes.

Based on the previous discussion of the literature reviews, it is clear that there are extensive researches works carried out on the factors that affect and develop positive attitudes toward employee's readiness for changes in an organization. The results of such studies are proven to support effort for organizational changes. Accordingly, the current study is one of the few studies in the domain of change management to test the effect of leadership styles on employee's readiness for changes. Moreover, it has been the first study to examine such relationship in the Yemeni's public sector.

2.6 Leadership Styles

Leadership as an action of leading organization groups of people is defined as an interaction process between leaders and subordinates to achieve objectives of organization where behavior of subordinates influence by the leaders (Kanter, 1982; Conger & Kanungo, 1998; Pavett & Lau, 1983; Reid, 2016). According to Weber (1947) leaders adopt one of these three styles of leadership: traditional, charismatic, or bureaucratic. He claimed that leaders have one of two basic personalities; transformational or transactional. He also asserted that bureaucratic leaders are transactional leaders and charismatic leaders are transformational leaders. Many studies refers that style of leadership is considerable for influencing employees performance and revealed correlation (Turner & Muller, 2005; Asrar ul Haq & Kuchinke, 2017). It is indeed serious for any organization to have an idea about the style leadership which can increase employee performance. In this rapid changing

world, it is highly influential to apply a style of leadership depending on the situation for achieving better (Galperin & Alamuri, 2017).

Eisenbach, Watson and Pillai (1999) and Herold *et al.* (2008) postulated that leadership styles and organizational changes are weakly integrated. Therefore, this study aims at integrating both factors through investigating the association of leadership styles and employee's readiness to changes. Hence, the two mentioned leadership styles are viewed as perfect tools for the study. Nadler and Tushman (1990) explained that various opinions on leadership styles, in the context of organizational changes, have led to a desire of an ideal style of leadership that could become an important tool for an organizational change. Additionally, the relationship between employees and leaders was found to be the highest indicator for organizational change readiness. Bernerth (2004) indicated that leaders should always be proactive in implementing a change process effectively and this can be best achieved by improving employee's readiness.

2.6.1 Transformational Leadership

Transformational leadership can be viewed as “the process of influencing major changes in the attitudes and assumptions of organization members and building commitment for the organization's missions or objectives” (Yukl, 1989, p 269) this view of transformational leadership which start with influencing major changes and ending with building commitment shows the synergetic relationship and how its interact is important to have more researches.

Researches have been carried out as far back as in the 1980s, on how transformational leadership affects changes (Bass, 1985; Bennis & Nanus, 1985). According to House (1996) theories on transactional and transformational leadership indicate the association between followers and supervisors in daily job activities whereas Aarons, G. A., Ehrhart, M. G., Farahnak, L. R., & Hurlburt, M. S. (2015) emphasize the effectiveness of leadership styles relation to changes and managers' effects on changes in subordinates.

Bass and Steidlmeier (1999) stated that effective freedom areas, consciousness realms, and level of work intentions could be increased through transformational leaderships. Similarly, Avolio and Bass (1988) quoted that Burns (1978) described the concept of transformational leadership as that person who has the ability to motivate others (followers) to work for tolerant goals in contrast to direct self-interest and self-realization in exchange for safety and security. The transformational leadership style deals with changes that not only transform subordinates' perspectives but also the perspectives of the leader. In explaining this leadership style, Kotter (1992) mentioned, that a leader's actions, whether as a teacher, a mentor or a role model, requires the individuals of the team or organization that he or she is leading to be high esteemed and self-actualized. In context of comparing between the transactional and transformational mode of leadership, both approaches are not to be considered separately, although the latter (transformational leadership) should be considered to have additional affects when compared (Koh, Steers & Terborg, 1995).

According to Burns (1978) transformational leadership is a tool that could be used to raise an organization's need for changes, to higher levels of motivation and development. Furthermore, Burns also stated that a transformational leader acts as an ordinary agent of changes, in the sense of the leader's ability to empower his or her subordinates in creating missions, completions and goals' achievability during the change implementation processes. This particular leadership style enhances employee's commitment towards changes. Bass (1985, 1990) discovered that the focus of transformational leadership on employees' behavior, through changing their essential values, beliefs and attitudes, could affect their overall behavior towards the organization.

Burns (1978) stated that transformational leaders try to make their subordinates, followers, agents or constituencies more aware of the consequences issues. The aim in this type of leadership is to form connections between subordinates and their commitments toward changes by promoting awareness on their objectives and contributions. In addition, Burns (1978) defined transformational leader as the person who has the ability to motivate others (followers) to work for tolerant goals in contrast to direct self-interest and self-realization in exchange for safety and security. This type of leadership affects the basic attitudes and assumptions of the employees within an organization, generates a common desire to achieve the organizational objectives (García, Morales, Lloréns, Montes, & Verdú, Jover, 2008). It is defined as the one responsible in creating valuable and positive changes in his or her followers (Chou *et al.*, 2013). Moreover, it has been recognized as crucial driver that assist in the enhancement of innovation and knowledge among employees (Nonaka &

Takeuchi (1995); Guo, J., Gonzales, R., & Dilley, A. E. (2016); keuchi, 1995; Sethibe, T., & Steyn, R. (2017).

This style of leadership encourages subordinates to search for new methods in carrying out their work, from inspirational motivations to intellectual stimulations. Ismail *et al.* (2010) studied the link between individual outcomes and transformational style of leadership. Findings from their study showed that transformational style of leadership is a significant indicator of procedural justice.

2.6.2 Transformational Leadership and Readiness to Change

According to Holten, A. L., & Brenner, S. O. (2015) transformational style of leadership could increase positivity of followers' evaluation of change in long-term as much as short-term which would benefit the every process of change. Readiness for change would embrace by fostering a psychological climate as a result of effective transformational leader (Lutz Allen, S., Smith, J. E., & Da Silva, N. 2013). Individual readiness to change is related to individual characteristics such as trust in management and communication climate which could be pre-change conditions so that good perceiving about leaders and management increase the level of individual readiness to change(Vakola, M. 2014).

Nguni, Slegers and Denessen (2006) carried out a study in primary schools in Tanzania, researching on the effect of transformational and transactional leadership styles on commitments. Their findings suggested that transformational style of leadership strongly influences teachers' commitment. The concerns of

transformational leadership as were highlighted in their study are the capacities and organizational member's commitments, which are in contrast when compared to transactional leadership.

Furthermore, Laohavichien, Fredendall and Cantrell (2009) investigated the relationship between quality management practices, infrastructures, and the degree of transactional and transformational leadership styles in organizations. Findings from this study show a contrast between the two leadership styles. While core quality management practices and infrastructures were affected by transformational leadership, both practices are unaffected by the transactional leadership. Regardless, examples have proven that both leadership styles are highly displayed and present in successful organizations as compared to the unsuccessful, which indicate that the results are based on the nature of setting itself, as a contribution to future researches' elements of study.

In another study carried out by Hawkins and Dulewicz (2009) among police in Scotland, the researchers investigated the relationships among leadership styles, emotional intelligences, context and leaders' performances. It was indicated that in enhancement of organizational performances and increase the successful rates for changes, transformational leadership is important and considered a key factor. In addition, the research also concluded that transformational leadership is crucial in promoting subordinate's commitments.

Similarly, Wright and Pandey (2012) carried out a study to understand the practices of transformational leadership in municipal chief administrative officers. The study

reveals a higher degree of transformational leadership in the public sector organizations, as compared to previous researchers' results. The researchers discovered that the small presence of bureaucracy in the organizations studied had adverse effects on the transformational leadership's prevalence or practices. The discovery led the researchers to believe that there exist a need to examine the characteristics of the bureaucracy and whether the characteristic became a barrier in practicing transformational leadership in public offices. Hence, this study will provide a response to the urgent call of the research, through studying the effects of leadership styles on employee's readiness to organizational changes in the public sector in Yemen.

Kavanagh and Ashkanasy (2006) found out that styles of leadership have association with employees' support for cultural changes. In addition, they emphasized that in achieving a higher degree of individual commitments, a leader assigned should be competently capable. The researchers have demonstrated that leadership is an important tool to enhance commitments toward changes among employees. However, further studies on the different leadership's styles need to be ventured to validate the claim.

The study of Limsila and Ogunlana (2008) supported the view that transformational style of leadership is significantly related with employee's commitments toward changes. They discovered that the transformational leadership's style positively and significantly relates with organizational commitments of followers, when compared with the transactional leadership. Furthermore, it was debated that high degree of readiness from employee's or followers could produce effective outcomes, which

contributed to the overall outcomes resulting through transformational leadership. However, ideal conditions such as being debated are hard to produce, and the appropriate style of leadership is required for followers to response positively.

The distinguishing features between transformational and transactional leaderships were explained by Burns (1978). According to Burns, transformational leadership emphasises on common goals through addressing the needs of employees, individually. On the other hand, transactional leadership is concerned with unifying the respective goals, values and motives, towards an aim for a higher goal. Contrary to one another, a notable feature of both leaderships that differs the style from one another is the implementation of leadership itself. While transformational leadership address subordinates individually through acknowledging the needs for personal growths and establishing common goals that satisfy the needs of both leaders and subordinates alike, transactional leadership approach goals through rewarding behaviours, actions and accomplishments, as a form of encouragement for subordinates, which leads towards the desired goals.

According to the literature review, transformational leadership style has been found to be one of the most critical variables that influence the commitment towards organizational changes. In addition to that, it has been reported that transformational leadership style has been extensively studied compared to other styles, such as transactional leadership style, as it generates positive relationships with employees (Whittington *et al.* 2009), obtains greater success in organizations compared to transactional leadership style (Johnson, 2009) and enhances employees' support to implement changes (Herold *et al.*, 2008) by increasing readiness to change (Vakola,

M. 2014). Notwithstanding the significant role of transformational leadership style on organizational changes, examining the effect of leadership styles including transformational leadership style on employee's readiness is scarce in the literature review (Lyons *et al.*, 2009) and in the public sector even more scarce (Fernandez & Pitts, 2007; Kuipers *et al.*, 2014). Thus, this study attempts to address this gap, founded in the organizational changes and leadership literatures, in order to get newer and deeper knowledge and understanding on the issue.

2.6.3 Transactional Leadership

Transactional leadership ensures that behavior is concentrated on a give and take process in which leader gives rewards or punishments to subordinates based on their efforts and performance (Burns, 1978). Transactional leaders can be viewed as leaders who focus on completing tasks and achieving expectations; usually they pay little attention to the needs of the organization (Avolio, 1999). According to Bryant (2003), there are three characteristics of transactional leadership. Firstly, transactional leaders work with subordinates and try to attain goals. Secondly, they exchange these rewards for work effort. Lastly, leaders are sensitive to the self-interests of subordinates. In addition, they involve a transaction or an exchange, which is an essential element between leaders and subordinates.

Bass (1985) declared that transactional leadership involves behaviours like monitoring performance, providing contingent material rewards, and providing contingent personal rewards, so that tasks are completed as expected. He

conceptualized it as three dimensions: contingent reward and management by exception (MBE) in two forms. Contingent reward is ‘the degree to which the leader sets up constructive transactions or exchanges with followers: the leader clarifies expectations and establishes the rewards for meeting these expectations’ (Judge and Piccolo 2004, p. 755). Management by exception ‘is the degree to which the leader takes corrective action on the basis of results of leader–follower transactions’ (Judge and Piccolo 2004, p. 755), and its two forms are (active and passive). ‘Active leaders monitor follower behavior, anticipate problems, and take corrective actions before the behavior creates serious difficulties. Passive leaders wait until the behaviour has caused problems before taking action’ (Judge and Piccolo 2004, p. 756).

2.6.4 Transactional Leadership and Readiness to Change

Organizational changes are a constant challenge where leaders play important roles in the transitions. This is because organizations have to improve their business operations and look for new technologies and projects that advocate changes in achieving sustainability. As a result, leadership has to offer various facilities for the employees in assisting them to accept the need for a change and show physical and psychological commitments towards it (Cummings & Worley, 2001; Johari, 2011).

Some arguable issues are that to achieve effective organizational change leaders need more than charisma; they must also display transactional behaviours, for example clarifying goals, setting up performance measures and applying rewards and

punishments (Nadler & Tushman, 1990). Therefore, transactional leadership is strongly related to the concept of exchange between a leader and subordinates. Sethibe, T., & Steyn, R. (2017) refer that both leadership styles, transformational and transactional should be adopted to improve innovative behaviour by rewarding employees for presenting innovative ideas which would support change processes within the organization and keep them ready for the entire change.

Stakeholders are required to carry its members along and assist them to be acquainted with the need for changes within the institution (Armenakis & Harris, 2002; Lewin, 1951). Odumeru and Ogbonna (2013) clarify that using reward and punishments to have compliance of followers by transactional leaders as extrinsic motivators. They guide followers to achieve the goals which already accepted and seem to be action-oriented. As it is known as coercive system, transactional leadership indicates power to direct from above. This style makes decision faster, which is important in times of transition. (Balagun & Hailey, 2008)

Burns (1978) qualitatively analysed leadership cases so as to differentiate transformational from transactional leadership. He stated that the relationship between the majority of organizational leaders and their followers are transactional. They tend to motivate followers to achieve the organizational objective by encouraging them through exchanging one thing for another. They attempt to identify and exploits the current needs or demands of followers. Moreover the transforming leader looks for potential motivations in followers, seeks to justify higher needs, and engages the full person of the follower. Consequently, the result of

transformational leadership is a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents.

In contrast, other studies have found that transactional leadership can be more of a forward planner than can transformational leadership. Vecchio, Justin and Pearce (2008) claimed that transactional leadership better explained the peculiar criterion variance beyond the contribution of transformational leadership than did transformational leadership. Transactional leadership provides a functional, practical leader–follower relationship that is essential in facilitating the exchange of valued resources or satisfying needs. Serina Al-Haddad and Timothy Kotnour (2015) asserted that the duration of time for a change in organization to take place could be long, thus planning for change, and addressing the critical factors is important to lead the success of a change program change.

Burns (1978) explained that this transactional style of leader–subordinate relationships is based on cost and benefit. Bass (1985, 1990a) considered transactional leadership to be a lower order approach to leading by suggesting that leadership style possesses many dimensions that are focused on the present and have their basis on keeping the status quo as opposed to transforming organizations and driving change. He introduced three dimensions of transactional culture which are; passive avoidant behaviours of passive management by exception, active management by exception, and contingent reinforcement or reward and the. The author (Bass, 1990a) further explained that contingent reinforcement or contingent reward is referred to as the follower's receiving of the reward depending upon the accomplishment of specific performance expectations provided by the manager. In

addition, active management by exception is when a leader actively looks for inconsistencies in a subordinate's performance, intending to take corrective action. By contrast, passive management by exception is where managers do not interfere unless the condition becomes critical.

Odumeru and Ogbonna (2013) stated that transactional Leadership is on the role of organizing, supervising, and enhancing performance of the group. Transactional leaders pay attention to find faults and deviations of what followers' work so it is effective when there is crisis or situation is critical. Transactional leaders are concerned individually with processes to get specific tasks completed ignoring forward-thinking ideas. Changes can only be implemented when employees' acceptance of the changes exist (Conway & Monks, 2008; Howarth & Rafferty, 2009; Lo, Ramayah, & Run, 2010; Meyer, et al., 2007), which indicates that leaders should take a role to prepare employee to be ready toward changes. Norshidah Nordin (2012) emphasized that developing styles of leadership (transformational and transactional) behavior would contribute to get readiness for change in organizations which subsequently lead a change program successfully.

To conclude that, it seems that transactional leadership style is less studied when comparing with transformational leadership style (Whittington *et al.*, 2009). Nevertheless, it is argued that specific characteristics of transactional leadership style could create positive attitude among employees which in turn result in effective organizational change leadership (Whittington *et al.*, 2009; Bennett, 2009). Individual tends to accept what the organization stands for and is willing to engage in process of achieving its mission. Due this fact study by Norshidah Nordin (2012)

showed readiness for change is predicted by leadership behaviour (transformational and transactional). As it is an essential factor for the growth and survival of the organization is to find leaders who are able to inspire and motivate employees to embrace repeated change in the organization (Westover, 2010). Consequently, this study decides to include transactional leadership style as an independent variable that will be examined its effect on employee readiness to change.

2.7 Commitment in workplace

Commitment in workplace could be in different forms and, so it has the possibility to impact effectiveness of organization and employee well-being. There is no agreement about what commitment is, and confusion still appears despite the increase in attention offered to work place Commitment studies in aspects of directive, developing, and effecting of behavior.

According to Sheldon (1971), commitment is a positive estimation of the organization and the organizations' goals. Organizational commitment is conceptualized as a single dimension that is based on loyalty, embracing identification, involvement, and attitudinal perspective (Porter, Steers, Mowday & Boulian, 1974). They view it as a combined energy of an individual's identification with his or her involvements with the organization. Commitment can be separated into two concepts; attitude and behaviour (Johnston, Parasuraman, Furell & Black, 1990). It can also be viewed as a function of individual behaviour which can be transferred to become commitments to the organization's goal (Becker, 1960). It is

detected Commitment in workplace could be in many forms such as Commitment to organizations (Mere & Allen, 1991) occupations and professions (Mere, Allen, & Smith, 1993), unions (Barling, Fullager, & Kelloway, 1992), teams and leaders (Hunt & Morgan, 1994), goals (Locke, Latham, & Erez, 1988), and personal careers (Hall, 1996). There are other forms of commitment like job commitment which refer to the potential that an employee will stay in a job, and feel psychologically stuck to it, even if he is satisfying or not. (Rusbult & Farrell, 1993), commitment to strategy embraces the desire of an employee to spend extra effort to attain the strategy of organization (Weissbein, Plamondon, & Ford, 1998) and commitment to organization change which defined by Herscovitch as “a psychological state that binds an employee to a course of action deemed necessary for the successful implementation of change initiative.” (Herscovitch, 1999, p.17)

Another viewpoint states that commitment as feelings of obligation by exertion of effort towards organizational goals (Porter *et al.*, 1974). In another perspective, commitment is seen to be an active and positive attitude towards the betterment of the organization (Johnston *et al.*, 1990). Porter *et al.* (1974) classified commitments into three areas; strong acceptance and belief in organizations' values and goals, the readiness to spend the utmost degree of one's energy for the betterment of the organization, and a powerful anxiousness to retain in the organization.

Consequently, Meyer and Allen (1991) separated organizational commitment into two parts: attitudinal (affective) and behavioural (continuance). This concept was extended based on the desire, need and duty to stay in the organization. They later came out with a new dimension of organizational commitment which is normative

commitment. Hence, organizational commitment can be classified into three: (i) affective commitment, (ii) continuance commitment and (iii) normative commitment. The affective commitment is viewed as an employee's emotional attachment dedication to work and a desire to stay in and try to continue working in organization.

In other words, an employee has a good commitment to the organization because it is what he or she desires. On the other hand, continuance commitment can be seen as the knowledge of the costs when leaving the work with the organization. This type of commitment is maintained because it meets a need (Meyer & Allen, 1991). In addition, normative commitment exists when there is an employee feels that he/she is obligated to continue employment with the organization. Meyer and Allen (1990) tried to include the good multidimensionality of organizational commitment into their three-component model. They suggested that it is possible for individuals to differ on each of the three commitment components, and referred to this as a commitment profile. Due to that reason, in this study we deal with component of commitment as individuals, which also can provide a clearer insight on each factors and how the factors can be affected by the leadership styles, in term of organizational change readiness enhancements.

2.8 Employee Commitment towards Changes

Commitment towards change can be defined as "a force that binds an individual to a course of action of relevance to one or more targets" (Herscovitch & Meyer, 2002. P.301). Explaining further, they indicate that to bind an individual to this behavior, it

involves a set of actions that reflect the three kinds of commitments start with a desire to engage in course of action to provide support for the change because they believe there are inherent benefits (affective commitment to change), second when the individual believes that there are costs related direct with their failure to provide support for the change or not enough (continuance commitment to change), finally feeling the duty due to support the change as a sense of obligation (normative commitment to change). In brief its employees feeling obligated and bound to support a change because they have a will and desire to do it and even they are obligated to practice it (Herscovitch & Meyer, 2002).

Herscovitch and Meyer (2001) claimed that the “core essence” of commitment must be same irrespective of the goal of that commitment. Furthermore, it is observed that the benefit of commitment in an organization is practically to ensure the achievement of the desired outcome. Meyer and Allen (1997) stressed that to initiate a change many factors should be involved begin with commitment which is arguably very important factor. Hence, it is argued here that the employee is the main factor for successful organizational change practically in their commitment. The benefit of employee commitment to change has been advocated by number researches (Fedor, Caldwell & Herold, 2006; Herscovitch & Meyer, 2002; Wanberg & Banas, 2000; Oakland & Tanner, 2007). According to (Huy, 2002), employee commitment plays a crucial part in making organizational change successful. However, the moderating effect of commitment to change is neglected in the literature of change in the organization.

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Research on the dimensions of commitment has shown that each one of them is very important to indicate a targeted behaviour (Meyer & Allen, 1997; Meyer & Herscovitch, 2001). Herscovitch and Meyer (2002) carried out three studies to examine a model on organizational change commitment. Commitment to change can be defined as “a force (mind-set) that binds an individual to a course of action deemed necessary for the successful implementation of a change initiative.” (Herscovitch & Meyer, 2002, p.475). Result show that the commitment to change scale can be categorized to the three dimensions and that each of the three dimensions is different from the others. In further work, they designed measuring commitment to organizational change. Therefore, the following section elaborates on what is meant by affective, continuance, and normative commitment to change.

2.8.1 Affective Commitment to Change

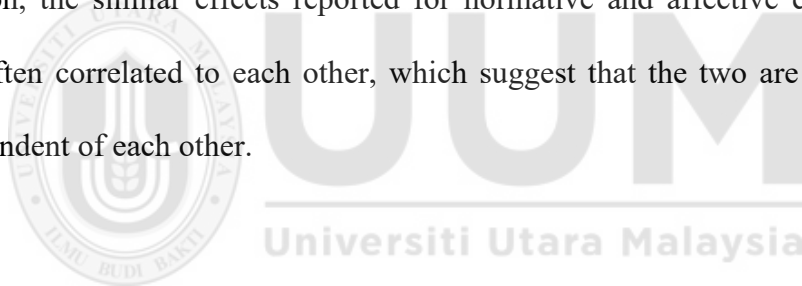
Meyer & Herscovitch, 2001 defined affective commitment to change as willingness to support the change or commitment to a goal. If an individual is about to carry out an action, the person is not expected to be affected by opposing forces. There are three contributing factors in order to develop an individual's affective commitment to change; shared values, identification with the target of a commitment and involvement in the target of commitment (Meyer & Herscovitch, 2001).

2.8.2 Continuance Commitment to Change

According to Herscovitch and Meyer (2002) continuance commitment to change is considered a “have to”, which refers to realizing the costs that are correlated with failure to support the change. Meyer and Allen (1997) and, Meyer and Herscovitch (2001) claimed that individual with high continuance commitment perceives it to be costly not to be committed to a target or carrying out an action. This form of commitment considers the costs that an individual is perceived as being associated with commitment or a lack of commitment to a target. Empirical evidence has clarified that high continuance commitment is likely to bind a person to a target (or a course of action). However, it is unlikely that an individual will be committed to anything above and beyond that particular target (Meyer & Herscovitch, 2001). For example, an individual might demonstrate commitment to staying with an organization but not demonstrate high performance.

2.8.3 Normative Commitment to Change

Based on the definition of Meyer and Herscovitch (2001), normative commitment to change is an “ought to” that is, a willingness to partake in the action to support the change. This kind of commitment is related to a person’s perception to be committed to a task. When a person possesses a high degree of normative commitment the person keeps an obligation to be committed. Empirical research shows that normative commitment has similar effects to affective commitment, although normative effects are generally weaker (Meyer & Allen, 1997). Normative commitment develops by the socialisation and internalisation of norms, or when a person receives rewards and feels a need to recompense (Meyer & Allen, 1991). In addition, the similar effects reported for normative and affective commitment are also often correlated to each other, which suggest that the two are not completely independent of each other.



2.8.4 Why Employee’s Commitment towards Changes could be a Potential Moderator?

Employee’s commitment towards organization has become a crucial issue faced by organizational management (Reade & Lee, 2012) as well as an essential part of behavioural intentions in supporting the change process (Fedor, Caldwell & Herold, 2006; Herscovitch & Meyer, 2002). Marchalina *et al.* (2018) assure the important of commitment of employees toward change for large companies to sustain in the global economy.

Although some researches have indicated that there is a positive relationship between transformational style of leadership and employee's commitment to the organization (Bass & Riggio, 2006; Kark & Shamir, 2002; Koh, Steers & Terborg, 1995), there are still not enough research findings on the relationship between transformational leadership and individuals' commitment to a change process (Herold *et al.*, 2008). Burke (2002), in answering the question of whether leadership matters for organizational changes, stated that the impact of leadership on organization change is still ambiguous. He also added that while it is proofed leaders affect significantly organizational performance in general so that it is definitely and surely they have an effect on organizational change process in particular (Burke, 2002; Sofat, K. (2015). In line with this, we believe that commitment towards changes could be a moderator on the relationship between leadership styles and employee's readiness to change, as the first phases in the Lewin's work (1951) as asocial exchange.

Furthermore, Yu *et al.* (2002) investigated the impact of transformational style of leadership practices on the teacher's commitment towards changes in Hong Kong. The authors found a strong and significance association between transformational leadership and teacher's commitment towards changes. The same result found regarding the impact of transformational leadership on teacher's commitment towards changes both North America and Hong Kong and there is a call for such research in Middle East. Herold, Fedor and Caldwell (2007) investigated the influence of the contextual and personal factors of an employee's commitment towards changes in the United State. They found that there is a positive and significant link between self-efficacy and commitment towards changes. Therefore,

they suggested for further researches to be conducted in the area of study, other contextual variables should be included.

Another study carried out by Lo *et al.* (2010) who examined the influences of transformational leadership on employee's commitment towards changes in the context of higher education in Malaysia. They found that two dimensions of transformational leadership style, namely idealised influence and intellectual stimulation, had a significant impact on three dimensions of commitment towards changes, namely personal goals, capacity belief and context belief. Their research indicates that although leadership style is an essential requirement for effective and efficient commitment, there has still been scarcity of research works studying the link between leadership style and organizational commitment to change. This gives an opportunity for current researchers to investigate.

Another study also conducted in Germany by Michaelis, Stegmaier and Sonntag (2010) found that transformational leadership has a significant effect on employee's commitment towards changes. Specifically, results demonstrate that transformational leadership was strongly related to followers' innovation implementation behavior and that the nature of this relationship was moderated by followers' levels of perceived climate for initiative. Additionally, commitment to change fully mediated the relationship between transformational leadership and followers' innovation implementation behavior.

An organization practicing transformational leadership is positively associated with insight of trust, job security, and fairness implicate in the psychological contract.

Researches have shown that style of leadership is essential in the process of an organizational change as well as after the changes (Kiffin-Petersen & Cordery, 2003). Parish *et al.* (2008) investigated the consequences of employee's commitment towards changes (affective, normative, continuance). Their result shows that all the antecedents (employee–manager relationship quality, fit with vision, job motivation and role autonomy) are found to be significantly related to commitment towards changes. They recommended more researches in this domain by adding some other antecedents to commitment toward changes including leadership style.

A study of Herold *et al.* (2008) stated that transformational style of leadership is more strongly associated with employee's commitment to changes, compared with transactional leadership. Thus, it has been argued that transformational leadership have strong effects and positively associated with employee's commitment to change rather than transactional leadership. According to Bass and Riggio (2006), there are differences and inconsistencies in this matter, and many aspects of employees' commitment have been associated to transformational style of leadership.

Moreover, Alimo-Metcalfe, Alban-Metcalfe, Bradley, Mariathasan and Samele (2008) stated that transformational leadership encourages and motivates the development of their employees based on integrity, openness, transparency and the genuine valuing of others and their contributions. Popular actions in organizations to embrace changes add the significance for current studies on the topic. Lo *et al.* (2009) investigated the effect of transformational and transactional leadership styles on lecturers' commitments toward changes. They discovered that transactional leaders attain better commitment towards changes than transformational leaders.

However, by contrast, Walumbwa and Lawler (2003) clarified that those leaders that display transformational style of leadership are more effective at attaining higher degree of commitment than that of transactional leadership style.

Furthermore, Bhal and Ansari (2007) and Lo *et al.* (2009) indicated that high quality of changes would lead to a view of procedural justice and would higher employee's commitments and acceptances to change. Employee's commitment towards changes could exert a reasonable effect on organizations, especially in instilling the employee's readiness to change. Number of studies has been conducted to examine the effect of leadership behaviour on affective commitment (Meyer & Allen, 1997). In a study to investigate the impact of transactional and transformational style of leadership on affective commitment, Fortmann, Feinzimer, Thompson, Glover, Moras, and Frame, (2003) have shown that there is a need to presume a relationship between affective commitment, one the main dimensions of Employee's commitment towards change, and transformational leadership style.

Cunningham (2006) investigated the association between coping with changes, turnover intentions, and commitment towards changes. The participants were 299 employees from 10 organizations in the process of an organizational change. Result shows that (a) the link between affective commitment towards changes and intention to turnover was fully mediated by coping with the changes, (b) the link between continuance commitment towards changes and intention to turnover was only partially mediated by coping with the changes and (c) the normative commitment towards changes had been found as a significant predictor of the intention to turnover. Cunningham (2006) claimed that despite the noted importance of a driver

for commitment towards organizational changes such as leadership, few researches had attempted to weigh the possibilities, its antecedents, its construct and outcomes.

Moreover, Chen and Wang (2007) investigated the effect of locus of control, demographic controls on employee's commitment towards changes. Results from the study show that employees with high locus of control had low affective and normative commitment to changes; employees with low locus of control had high continuance commitment to changes. In the same concern of commitment towards changes Fedor *et al.* (2006) investigated, how an organizational change can affect individuals' commitment to a particular change and commitment towards that organization at large. They found that an organizational change have strong effect on the employee's commitment towards a change and on the organization as well but in a different way. Conway and Monks (2008) studied employee's commitment towards changes by investigating the association between human resource practices and commitment towards changes in three health service organizations in Ireland. The study indicated that transactional leadership had a negative impact on affective commitment to changes. Thus, transactional leaders are less effective at increasing employee's commitment to a change.

Before the direct and indirect relationship between independent and dependent variables can be understood, it is essential to first examine the role of possible moderators (Koslowsky, 2001). Studies have suggested that factors such as organizational commitment predict future behaviour and that the relationship can be improved by using a moderator. Moderators can also assist in explaining findings

from studies. For instance, Yu, Leithwood, & Jantzi, (2002) carried out a study which shows that transformational style of leadership indicated only about 11% of the variance regarding the commitment towards changes of teachers in Hong Kong. They further discovered that shared vision for the school and unison on the schools' goals were factors that relates to the teachers' commitment towards a change. Hence, the result suggests that there are some moderators that indicate the liaison between transformational style of leadership and the change that is taking place.

The moderating effect of employee's commitment to change influences the association between style of leadership and readiness for changes. Gelaidan *et al.* (2018) carried out a study in public higher education institutions which confirmed that employee's organizational commitment moderates significantly the link between leadership behaviour and employee's readiness to change. Moreover, AL-Abrow and Abrishamkar (2013) found that the link between commitment towards change and readiness to change has been found to be significant. These findings are based on 123 samples collected from employees in three Iraqi universities. This study which examines the moderating effect of commitment towards change on the relationship between leadership styles and readiness to change may bring new insights to the body of change management literature.

Based on the literature review, employee's commitment towards changes could exert a considerable influence on organizations, particularly in areas such as changes and readiness to change. However, the moderating effect of employee's commitment towards changes on the relationship between leadership styles and readiness is not revealed in the literature reviews. Thus, this study expects to uncover the

significance of employee's commitment towards changes in moderating such relationship where theoretical and practical implications will be built on.

2.9 Underpinning Theory

Today the change management has become a concept that is familiarized in organizations. The outputs of change management, whether it is managed well and successful to accomplish its goals however, are different for organizations. Success of change managements varies on the variables involved; change's nature, business' nature and stakeholders of changes. In the era where transformation and transgression are mandatory for organization to survive and thrive, the knowledge of organizational changes, implementations and its variables are held in high regards. In testimony of this claim, there are abundance of researches and theories in the field of changes. For the current study, the main theory is Lewin's Three-Step Change Theory and Social Exchange Theory (SET). The discussion related to these two theories and the rationale for utilizing them for the current study are highlighted in the following sections.

2.9.1 Lewin's Three-Step Change Theory

An organization's readiness for changes is the key to the Unfreezing Stage in Lewin's Three-Step Change theory. This metaphor is used to illustrate the changing model as if an ice moulding process. Ice's shape could change after melting (unfreezing) it, which is reflected in practical term "change readiness", describing

the unfrozen process and preparing people for the next step. Lewin believed that the stability of people's behaviours is the most crucial factor in assisting change's process. Unfreezing (changing readiness) is a process to erase old behaviour before starting the change process in creating a new conception for people. By increasing the amount of forces to drive away behaviour in an existing environment, decreasing the drivers that affect the movement negatively from an existing equilibrium and finding a combination of the two methods, it could put a strain on individuals' resistances while also securing conformity within subjected individuals.

Kurt Lewin's 'changing as three steps' (unfreezing → changing → refreezing) is recognized as the classic or fundamental approach to managing change (Cummings, Bridgman, & Brown, 2016). The Three-Step Change model provided by Kurt Lewin (1951) as shown in figure 2.1 below namely Unfreeze; Change and Refreeze, are the steps in the model he theorized.

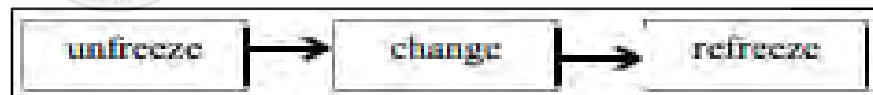


Figure 2.1: Lewin's changing as three steps Approach

Kurt Lewin is widely known as the change management's founding father through his discovery of his theory of unfreeze–change–refreeze or 'changing as three steps' (see Figure 2.1), which is considered the fundamental or classic approach or classic paradigm in managing changes (Robbins & Judge, 2009; Sonenshein, 2010; Waddell, 2007). The change management's studies that have followed Lewin (Jeffcutt, 1996) and Lewin is considered as the intellectual and perfect father of contemporary theories (Schein, 1988; Cummings, Bridgman, & Brown, 2016). The

western theories on change management had subsequently followed the ‘changing as three steps’ (CATS) which dominates the area of study for over fifty years (Michaels, 2001). Academicians have been known to claimed that all change’s theories are ‘reducible to this one idea of Kurt Lewin’s’ (Hendry, 1996), and practitioners also been benefited by the CATS and boasted that the CATS model is the most powerful tool to be used in change managements (Levasseur, 2001 p. 71).

The awareness of the essential of change managements in organizations led many researchers to uncover virgin subjects of changes, focussing in leadership and learning, which has become popular concerns in organizations. Thus, other models, derivations from the CATS model, arised, such as Tichy and Devanna’s (1986) “Three-Act Model of Transformational Leadership” and Schein’s ‘Model of Change/Learning’ (2010). Transformational and transactional leadership insure the employees for the need to change, it insures the support from management, and create the need for changes. The CATS model is illustrated below in Figure 2.2.

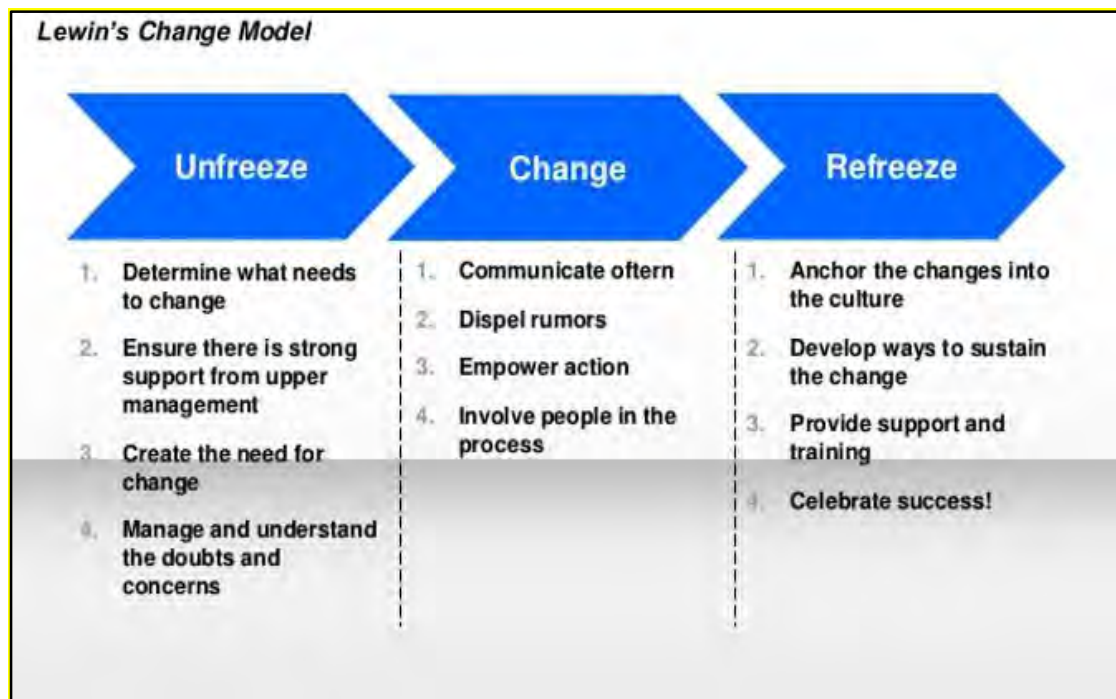


Figure: 2.2

Lewin's Three Step Change Process

Source: Kurt Lewin (1951)

Northouse (2004) defines leadership as a process by which an individual influences others to achieve common objectives. The study by Cummings and Worley (2003) discussed processes of change revolving around five vital activities which include change motivation, political support development, transition management, vision creation, and sustaining momentum. Using Lewin's theory of change, these five activities link the relationship between transformational and transactional leadership. Change motivation and vision creation are activities done during the unfreezing stage (Lewin's theory) or the initial stage when organizations are considering going through changes. Political support development and transition management are activities done on the change stage (Lewin's theory), where the organization is moving in for the changes. Sustaining momentum illustrates the implementation and

refreezing state (Lewin's theory) of the change (Hussain, Lei, Akram, Haider, Hussain, & Ali, 2016)

Employee's resistances (Stanley, Meyer, & Topolnytsky, 2005), and openness to change (Wanberg & Banas, 2000) are the two factors identified to have crucial roles during the process of a change. Process of changes that are affected by resistances towards changes will result in negative outcomes (Bordia *et al.*, 2004) while the employees' openness toward changes need to be focused during changing process. The context of change leadership can be seen as the process of deterring the current state of the work group and the level which should to be in the future and designing an effective strategy to get that level. Leadership also involves implementing changes through developing a base of influence with followers, motivating them to commit and work hard in pursuit of change goals, and working with them to overcome obstacles to changes (Laura & Stephen, 2002). Lewin's theory in its first step which is unfreezing or melting as well bringing to light that employee's attitude and behaviors should be modified to be ready for the next step of change steps. In other words, bringing individuals to the change processes is one a step to be done by leaders through transformational and transactional leadership styles to increase the motivation or intention of employees towards change.

The type of leadership styles that an organization adopts will play an important role during the organizational change's process. Implementation wise, while approach for transactional leadership styles adhere rewards and punishments toward subordinates as a form of performances' encouragement, transformational style of leadership approaches values such as charisma, inspiration, intellect and individual

consideration to boost performances (Bass, 1985). Both leadership styles prioritize stakeholders' identification for a change process. By deciding who is benefitting most from the changes and who would incur the most losses, these stakeholders (managers, staffs, and executives) can choose to support changes that could maximize the possibilities of success and minimize the risks of resistances in changes' process, eventually building relationships that could become useful influences (Cummings & Worley, 2003). In motivating organizational changes, agents of changes have been known to approach three methods, which are; playing it straight, going around the formal system and using social networks (Greiner & Schein, 1988). Encouraged leaders will take advantages of task's commitments and effectiveness by supporting the changing process while also giving suggestion to improve the processes along the way (Higgins, Judge, & Ferris, 2003).

Hence, in the context of Lewin's three step change process, transformation leadership and transactional leadership enhance the employee's readiness towards changes by motivating through rewards and inspirational activities. It creates the commitment among employees to a change and defines certain behaviours toward a change. At the end a change process, the changed conditions affected will become a permanent part of the organization, through the assistances of the employees' readiness toward the change.

2.9.2 Social Exchange Theory

Another theory related with the study is the Social Exchange Theory (SET). It is one of the most influential conceptual paradigms related to understanding the workplace

behaviour. This theory is developed by George Homan (1958) and the roots of this theory can be traced back to Malinowski (1922) and Mauss (1925). It is a theory which is related to the dynamics of interpersonal and human relationships and it focuses on the reasons underpinning their choices. According to Homans, people weigh the potential benefits and risks of social relationships. It has been argued that reward and cost produce a sustainable mutual confidence and attraction (Blau, 1964). Homan stated that money is not the only rewards as other intangible things such as esteem, love, approval, and care are also considered (Yukl, 1994). He mentioned that individuals believe that the recipient of rewards should be equated to the contribution or interaction (Howard & Hollander, 1997). In the working environment context, employees generally anticipate some kind of rewards such as acknowledgment and promotion in lieu of their commitment.

In terms of the link between leadership styles and social exchange, it is in line with the argument followers of transformational leaders are motivated to perform beyond the expectations and transformational leaders activate their higher order needs. Those leaders also raise the follower awareness and consciousness towards the importance of designated outcomes. Hence, followers of transformational leader go beyond their self-interest for the sake of their institutions and they feel admiration, trust, and loyalty towards their leader (Bass, 1985). Consequently, the followers' commitment will be affected. On the other hand, transactional leaders who get the cooperation of their follower by establishing economic exchanges process, this means that transformational leaders establish psychological and social exchange

process which bonds them with their followers within a collaborative change process (Pillai, Schriesheim, & Williams, 1999).

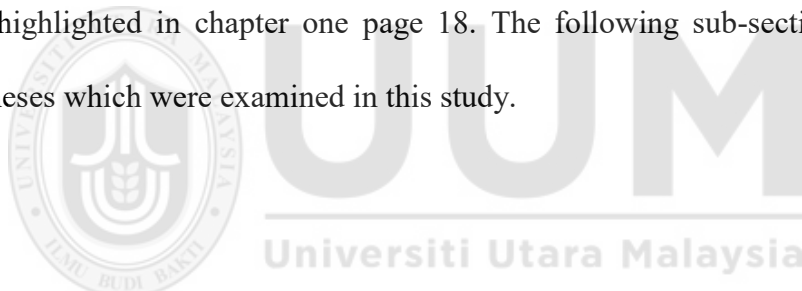
In line with the argument of exchange process between followers and leaders, social exchange theory provides support to examine the consequences of leadership styles in organizations (Pillai *et al.*, 1999). According to the theory, the exchange between the leaders and followers range from lower-quality to higher-quality. Lower-quality exchanges represent the economic exchanges which characterized by the exercise of formal organizational authority. They are based on transactions and in terms benefits they are short-term. Leaders in these exchanges obtain routine and formal follower performance and those leaders usually are providing rewards in exchange for meeting agreed upon objectives. On the other hand, the higher-quality exchanges represent the covenantal, social, and psychological contracts which go beyond economic exchanges. Comparing with the lower quality exchanges, the working relationships between leader and followers for the higher-quality exchanges are friendly (Deluga, 1994).

In conclusion, SET focuses on the power among individuals where followers usually superior to their leaders in light of power and as a result, they adhere to the request of their leaders as they depend on the resources provided by them. In other words, when there is a social exchange between the leader and the followers, the followers are more willing to engage more in achieving the organizational goals including change initiatives. They also tend to be ready for any changes adopted by the organizations as well as committed towards that change. The followers' exchange relationship with their leaders is of great importance to the former and they

anticipate support from the leaders of their leaders in order to feel the appreciation of their value. Consequently, the followers who feel appreciative would repay their institutions through positive attitudes and proper actions with the existence of high level of support from their institutions (Coyle-Shapiro, Jacqueline & Conway, 2005).

2.10 Hypothesis Development

Based on a literature review, the hypotheses of the study were developed. The development of these hypotheses is in line with the questions and objectives of the study highlighted in chapter one page 18. The following sub-sections outline the hypotheses which were examined in this study.



2.10.1 Leadership Styles and Employee's Readiness to Change

Generally, leadership is considered to be a critical factor to any organizational change success (Ahmad *et al.*, 2007; Allen *et al.*, 2013; Bass & Riggio, 2006; Battilana *et al.*, 2010; Chrusciel, 2006; Drucker, 2002; Fiedler, 1967; Galperin & Alamuri, 2017; Herold *et al.*, 2008; Vakola, M., 2014). Specifically, leadership styles, including transformational and transactional leadership styles, have been acknowledged to be critical antecedents of employee's readiness to change (Aarons *et al.*, 2015; AL-Abrrow & Abrishamkar, 2013; Lyons, *et al.*, 2009; Reid, 2011; Sethibe, T., & Steyn, R. 2017). For instance, the transformational leadership style

creates a positive change environment through encouraging followers to be innovative in achieving their objectives (Bass, 1985; Holten, A. L., & Brenner, S. O., 2015). On the other hand, transactional leadership style meets the needs of individuals in the form of rewards on the condition that the work objectives have been successfully achieved (Avolio & Bass, 2002; Sethibe, T., & Steyn, R., 2017).

However, it was argued that leadership styles behaviours may raise negative consequences which affect badly on the followers' performances, increase of absenteeism and turnovers (Lamude, 1994; Motowidlo, 2003). Therefore, the leaders should utilize various leadership styles in order make the change successful and achieve the stated objectives of the organization (Lian & Tui, 2012). According to Herold *et al.* (2008), studying the relationship of leadership and organizational change is very important, as only effective leaders facilitate the changing process. Moreover, past literature reviews revealed that there is a scarcity of studies testing the link between leadership styles in the form of transformational leadership and transactional leadership empirically (Lyons *et al.*, 2009). Based on the arguments highlighted above, the following hypotheses are postulated: -

Hypothesis 1 (H1): Transformational leadership style has a significant effect on employee's readiness to change.

Hypothesis 2 (H2): Transactional leadership style has a significant effect on employee's readiness to change.

2.10.2 Commitment towards Changes as a moderator

In general, it is argued that employee's commitment to an organization leads to positive results in a change implementation (Fedor, Caldwell & Herold, 2006; Svensen *et al.*, 2007; Shum *et al.*, 2008). Many organizations tend to improve their employees' talents and enthusiasms through employees' commitments (Senge, 2014). Moreover, employee's commitment is crucial in making decision making and adapting to changes within the organizations smoothly (Marchalina & Ahmad, 2017), and low levels of commitments are the main reason for failures of most organizational changes (Burke, 2002; Probst & Raisch, 2005). Specifically, the majority of organizational changes have failed due to the low level of employee's commitment towards changes (Probst & Raisch, 2005).

It is also argued that that employee's commitment towards a change is more effective and important than organizational commitment because of the fact that commitment towards a change is more matched to practical changes (Elias, 2009; Ford & Weissbein, 2003; Herscovitch & Meyer, 2002). Studies carried out by Parish, Cadwallader and Busch (2008) and Cunningham (2006) concluded that employee's commitment towards changes is an essential factor for the success of a change process. Another empirical study done by AL-Abrrow and Abrishamkar (2013), reported that commitment towards changes is a significant variable affecting employee's readiness to change.

On the other hand, the changes cannot be implemented within the organization if employees do not accept them (Conway & Monks, 2008; Howarth & Rafferty, 2009; Lo *et al.*, 2010; Meyer, *et al.*, 2007) and they must have the commitment to implement such changes. This is because of the fact that employee's commitment towards changes creates a significant connection between people, including employees and leaders, and the motivation for implementing the changes (Baraldi *et al.*, 2010). Therefore, leaders are responsible for providing different facilities which prepare employees for the changes and become physically and psychologically committed to implement it (Cummings & Worley, 2001; Johari, 2011).

Although some studies proved the significant association between the leadership styles and employee's readiness to change (Lyons, *et al.*, 2009; Reid, 2011; AL-Abrrow & Abrishamkar, 2013), utilizing inappropriate leadership styles may lead to negative consequences such as weak work performances, high absenteeism and high turnovers (Lamude, 1994; Motowidlo, 2003). These consequences will affect badly during the process of implementing changes and surely lower the employee's readiness to change. In addition, some practices of leaders such as pressuring, exchanging and legitimating tactics have negative effects on the employees' behaviour (Sparrowe *et al.*, 2006). And when it is proved that transformational leadership and transactional leadership have significant positive relationship with employees' commitment (Gelaidan & Ahmad, 2013) taking in confederation that employees' commitment have a significant positive relationship with employees' satisfaction (Hussain, Rizwan, Nawaz, & Hameed, 2013) and employees' readiness to change (Gelaidan, Al-Swidi, & Mabkhot, 2018).

Thus, it is suggested that the effect of leadership styles, transformational leadership and transactional leadership, on employee's readiness to change is enhanced through the existence of employee's commitment towards changes.

Although it has been claimed that organizational related behaviours such as commitment (Meyer, Stanley, Herscovitch, & Topolnytsky 2002) and leadership behaviour (Chrusciel 2006) are also essential in comprehending organizational changes, there are little findings showing the interaction between them. In addition to that, the bulk of research works carried out on employee's readiness to change and commitment towards implementing the change are in western countries (Madsen, Wahlberg, Tougaard, Lucke, & Tyack, 2006; Foster, 2010), while empirical researches in non-western countries are still scarce (Mellahi & Collings, 2010). Thus, this study addresses this gap by testing the moderating effect of employee's commitment towards change on the relationship between leadership styles and employee's readiness to change. The following hypotheses can be suggested as follow,

Hypothesis (H3): Employee's Commitment towards change moderates significantly the relationship between transformational leadership style and employee's readiness to change.

Hypothesis (H4): Employee's commitment towards change moderates significantly the relationship between transactional leadership style and employee's readiness to change.

2.11 Theoretical Framework of the Study

The current study aims to examine the effect of the styles of leadership on employee's readiness to change. Moreover, it also examines the influential roles of employee's commitment towards changes on the link between leadership styles namely transformational and transactional leaderships and employee's readiness to change. In this study, both leadership styles namely transformational and transactional leaderships, as the two main constructs constituting the independent variables, while employee's commitment towards changes construct was employed as the moderator on the relationship between leadership styles and employee's readiness to change. Figure 2.3 explains the relationships among the variables that represent the theoretical framework of the study.

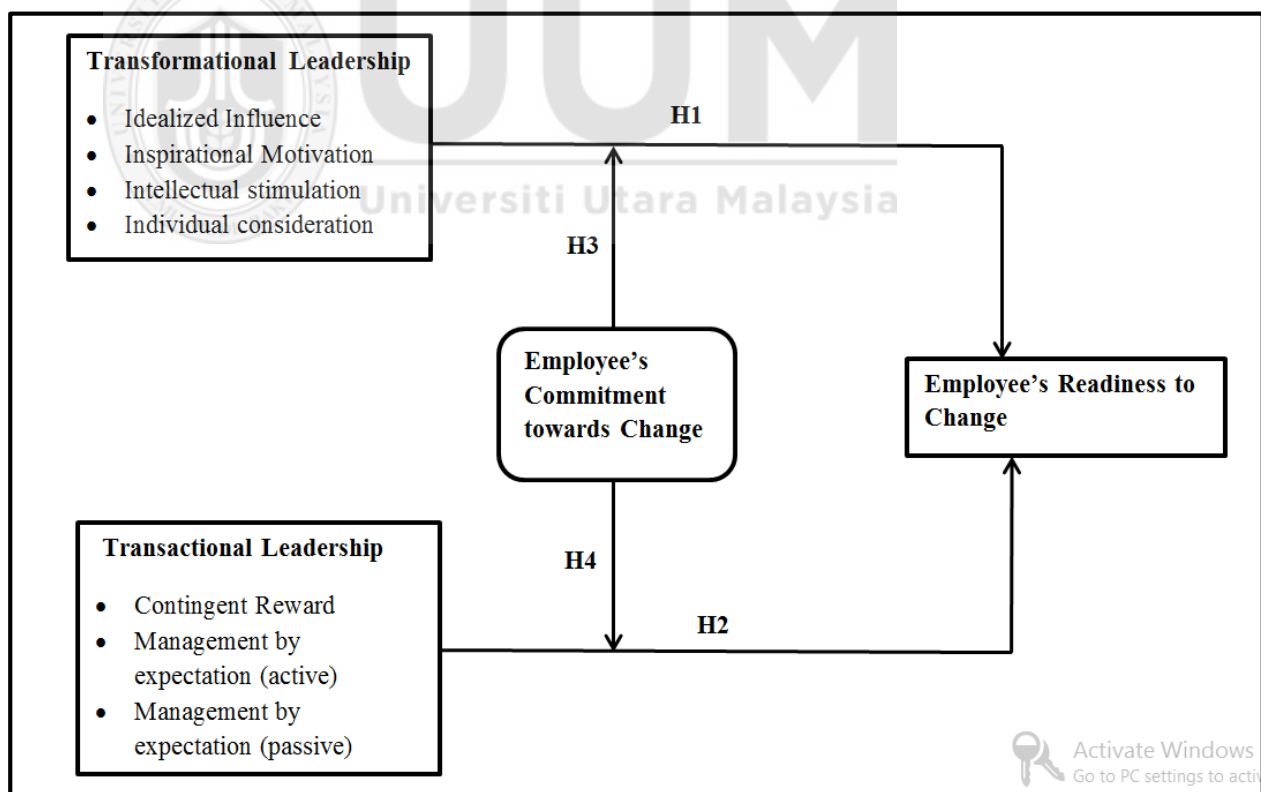


Figure 2.3

The theoretical framework of the study

2.12 Summary of Chapter

Although there have been bulks of literatures examining the effect of leadership styles as independent variables on different independent variables, there is a scarcity of research in the area of change management, especially the areas of readiness to change. Based on a thorough literature review related to leadership styles, readiness to change and commitment towards changes, many conclusions can be drawn. The first one is that an extensive research work have been executed on the effect of leadership styles on other constructs, however, there are a scarcity of studies carried out on the link between leadership styles and readiness to change. Moreover, it is revealed that the moderating effect of commitment towards change on the link between leadership styles and readiness to change is not founded in the literatures of change management. In addition to that, it is also discovered that bulks of research works carried out on employee's readiness to change and commitment to implement changes are done in the western countries (Madsen *et al*, 2005; Foster, 2010), while empirical researches in non-western countries are still scarce (Mellahi & Mellahi & Collings, 2010). Therefore, this study will contribute to the literatures of organizational changes and leadership by examining the effect of commitment towards change as the potential moderator on the relationship between leadership styles and employee's readiness to an organizational change. The theoretical framework of the study is undergounded by Lewin's Three-Step Change Theory and Social Exchange Theory.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Chapter two has discussed the relevant literature, the hypotheses and framework for this study. In this chapter, detailed discussion on how the present study was carried out will be offered.

This section explains the method that is used to answer the study objectives. Additionally, in this study, the primary source is the main source of data to examine whether or not leadership styles influence the readiness to change among public sector employees in Yemen, through using a structured questionnaire that distributed. This study also examines whether or not the employee's commitments to a change plays a moderating role between the leadership styles and readiness to change.

This chapter is organized as follows: the next section presents research design, sampling and data collections, operational definition of the variables and measurement. Then, the chapter outlines the questionnaire design, pilot study, proposed techniques of data analysis and finally summary of the chapter.

3.2 Research Design

As the main objective of the current study is to investigate the effect of leadership styles on employee's readiness for changes and the moderating effect on such relationship, it focuses on the descriptive and hypothesis testing. The study selected the descriptive construct to identify the respondents' characteristics and uses hypothesis testing to explain the relationship among the variables of the study as well as the variances in the dependent variable.

A cross-sectional design was employed which involves collecting data through a one-time survey questionnaire to achieve the objectives of the study (Sekaran & Bougie, 2010). The rationale for adopting a cross-sectional design is that it is a lower cost, less time consuming and less effort when comparing with a longitudinal design. Thus, this study can be categorized as a quantitative oriented research (Kerlinger & Lee, 2000). The individual level is the unit of analysis for the study whereby, the samples are the employees in the Yemeni public sectors.

3.3 Sampling and Data Collection

Sampling can be viewed as a procedure of selecting items or units from the whole population to generalize the selected sample's or unit's characteristics of the entire population (Sekaran & Bougie, 2010). The target population of the current study is the employees in the Yemeni public sector particularly Finance Ministry, Education Ministry, Health Ministry and Public Work and Highway Ministry. The reason

behind selecting these ministries is because they are considered as the largest ministries in Yemen (Ministry of Civil Service statistic report, 2009). Moreover, the main concern for the reforms applied by the Yemeni government is towards enhancing these ministries, which indicates that they face more change initiatives compared to organizations from other public sectors (Gelidan, 2012). According to the Ministry of Civil Service statistic report (2009), the total number of employees in the four ministries is 323,633 (table 3.1).

Table 3.1 Population of Four Ministries

No	Ministry	No of Employees
1	Ministry of Education	261537
2	Ministry of Public Health & Population	41101
3	Ministry of Public Works & Urban Development	12643
4	Ministry of Finance	8352
Total		323633

Source: Ministry of Civil Service in Republic of Yemen (2009) Statistical Report

Based on the recommendation of Krejcie and Morgan (1970) regarding the sample size, the ideal sample size should be 384 for a population exceeding one million. Although the population of this study is 323,633 employees which are lower than a million, the sample size is still set at 384 to ensure a more accurate respond data.

However, the researcher distributed 768 questionnaires, doubling the recommended sample size, in order to ensure higher respond rate and avoid bias responses. This is because the existence of poor research culture in Yemen (Gelaidan & Ahmad, 2013), which is anticipated to hinder the process of data collection. The questionnaires were distributed and collected personally, as this study uses the personally administered questionnaires method.

3.4 Operational Definitions and Measurement

The framework includes four main constructs namely transformational and transactional leadership as independent variables, employee's commitment towards change as a moderator and employee's readiness to change as a dependent variable. For the purpose of achieving the objectives of the current study, the study used a five-point Likert scale anchored at "1" strongly disagree to "5" strongly agree at "1" (strongly disagree) to "5" (strongly agree) for measuring transformational leadership, transactional leadership, employee's commitment towards change and employee's readiness to change. This section discussed the operational definitions as well as the measurement of the study's constructs.

3.4.1 Transformational Leadership

Transformational leadership attempts to make followers inspired, challenged, and stimulated to pursue a vision and achieve extraordinary outcomes (Avolio & Bass,

2004). It includes four dimensions idealized influence leadership, inspirational motivation, intellectual stimulation and individualized consideration.

The measures of transformational leadership will be derived from the measure's instrument developed by Avolio and Bass (2004). The MLQ which refer to multifactor leadership questionnaire is extensively and widely used in leadership literatures to measure transformational leadership and transactional leadership as it has been validated and proved to be reliable (Judge, Fluegge Woolf, Hurst & Livingston, 2006; Sethibe, T., & Steyn, R. 2017). The items used for measuring the dimensions of transformational leadership are shown in Table 3.2.

Table 3.2

Transformational leadership (TFL) scale

Code	Item	Source
Idealized Influence		
IDI1	Talks about his or her most important values and beliefs.	Avolio and Bass (2004).
IDI2	Instils pride in me for being associated with him or her.	
IDI3	Specifies the importance of having a strong sense of purpose.	
IDI4	Goes beyond self-interest for the good of the group.	

Table 3.2 continued

Code	Item	Source
IDI5	Acts in ways that build my respects.	
IDI6	Considers the moral and ethical consequences of decisions.	
IDI7	Emphasizes the importance of having a collective sense of mission.	
IDI8	Displays a sense of power and confidence.	

Inspirational Motivation

INM1	Talks optimistically about the future.	Avolio and Bass (2004).
INM2	Talks enthusiastically about what needs to be accomplished.	
INM3	Articulates a compelling vision of the future.	
INM4	Expresses confidence that goals will be achieved.	

Intellectual Stimulation

INS1	Re-examines critical assumptions to question whether they are appropriate.	Avolio and Bass (2004).
INS2	Seeks differing perspectives when solving problems.	
INS3	Gets me to look at problems from many different angles.	

Table 3.2 continued

Code	Item	Source
INS4	Suggests new ways of looking at how to complete assignments.	
Individualized Consideration		
INC1	Spends time teaching and coaching.	Avolio and Bass (2004).
INC2	Treats me as an individual rather than just as a member of a group.	
INC3	Considers me as having different needs, abilities, and aspirations from others.	
INC4	Helps me to develop my strengths.	
IDI= Idealised influence, INM= Inspirational Motivation, INS= Intellectual Stimulation, INC= Individualised Consideration.		

3.4.2 Transactional Leadership

Transactional leadership can be viewed as an exchange process with the subordinates in whom the leaders focus on errors and exceptions, exchanging rewards for effort and results, and can be effective leaders. Transactional leadership embraces three dimensions namely contingent reward, active management by exception and passive management by exception.

The measures of transactional leadership originate from the instruments developed by Avolio and Bass (2004). The items that measure the dimensions of transactional leadership are highlighted in table 3.3

Table 3.3
Transactional Leadership (TAL) scale

Code	Item	Source
Contingent Reward		
COR1	Provides me with assistance in exchange for my efforts.	Avolio and Bass (2004).
COR2	Discusses in specific terms who is responsible for achieving performance targets.	
COR3	Makes clear what one can expect to receive when performance goals are achieved.	
COR4	Expresses satisfaction when I meet expectations.	
Management by exception-Active		
MAE1	Focuses attention on irregularities, mistakes, exceptions and deviations from standards.	Avolio and Bass (2004).
MAE2	Concentrates his or her full attention on dealing with mistakes, complaints and failures.	
MAE3	Directs my attention towards failures to meet standards.	
MAE4	Keeps track of all mistakes.	

Table 3.3 continued

Code	Item	Source
Management by exception-Passive		
MEP1	Fails to interfere until problems become serious.	Avolio and Bass (2004).
MEP2	Waits for things to go wrong before taking action.	
MEP3	Shows that he or she is a firm believer in, "If it ain't broke, don't fix it".	
MEP4	Demonstrates that problems must become chronic before taking action.	
COR= Contingent Reward, MEA= Management by Exception Active, MEP= Management by Exception Passive.		

3.4.3 Employee's Commitment towards Change

Commitment towards change can be seen as the degree that employees perceive their organizations are committed to them and their loyalty towards their organization (Vakola & Nikolaou, 2005). The construct of commitment towards change that are used include three dimensions namely affective commitment, continuance commitment and normative commitment towards change as shown in Table 3.4.

Table 3.4 *Employee's commitment towards change (ECC) scale*

Code	Item	Source
Affective commitment		
AFC1	I believe this change is valuable.	Herscovitch and Meyer (2002)
AFC2	This change is a good strategy for this organization.	
AFC3	I think that management is making a mistake by adopting this change. (R)	
AFC4	This change serves an important purpose.	
AFC5	Things would be better without this change. (R)	
AFC6	This change is not necessary. (R)	
Continuance commitment		
COC1	I have no choice but to go along with this change.	Herscovitch and Meyer (2002)
COC2	I feel pressure to go along with this change.	
COC3	I have too much at stake to resist this change.	
COC4	It would be too costly for me to resist this change.	
COC5	It would be risky to speak out against this change.	
COC6	Resisting this change is not a viable option for me.	

Table 3.4 continued

Code	Item	Source
Normative commitment		
NOC1	I feel a sense of duty to work towards this change.	Herscovitch and Meyer (2002)
NOC2	I do not think it would be right of me to oppose this change.	
NOC3	I would not feel badly about opposing this change. (R)	
NOC4	It would be irresponsible of me to resist this change.	
NOC5	I would feel guilty about opposing this change.	
NOC6	I do not feel any obligation to support this change. (R)	

AFC= Affective Commitment, COC= Continuance Commitment, NOC= Normative commitment.

3.4.4 Employee's Readiness to Change

Employee's readiness to change can be seen as a state of mind that reflects the willingness and receptiveness to change in the way an individual thinks (Bernierth, 2004). It includes four dimensions namely appropriateness, management support, change efficacy and personally beneficial.

The measure of employee's readiness to change was originated from the related studies in change literature. Hence, this study will use measures developed by Holt *et al.* (2007) with four dimensions: appropriateness of change, management support, and change efficacy and personally beneficial. This measurement is widely accepted and is most used by the researchers in the change management discipline (Choi & Ruona, 2011). These measures are well-known and had been used to measure readiness to change by many studies such as Ried (2011), AL-Abrow and Abrishamkar (2013) and Santhidran, Chandran and Borromeo (2013). The items that will be used to measure employee's readiness to change are shown in table 3.5

Table 3.5
Employee's readiness to change (ERC) scale

Code	Item	Source
Appropriateness		
APP1	I believe that my organization will benefit from this change.	Holt <i>et al.</i> , (2007)
APP2	It makes much sense for us to initiate this change.	

Table 3.5 continued

Code	Item	Source
APP3	There are real reasons for us to implement this change.	
APP4	This change will improve the overall efficiency of our organization.	
APP5	There are many logical reasons for this change to be made.	
APP6	In the long term, I think it will be worthy for me if the organization makes this change.	
APP7	This change makes my job easier.	
APP8	When this change is implemented, I believe there is something for me to gain.	
APP9	The time we are spending on this change should be spent on something else.	
APP10	This change matches the priorities of our organization.	

Management Support

MAS1	Our organization's leaders have encouraged all of us to extend our arms for this change.	Holt <i>et al.</i> , (2007)
MAS2	Our organization's leaders have put all their support behind this change effort.	
MAS3	All our senior managers have declared the importance of this change.	
MAS4	Most of our organization's leaders are committed to this change.	
MAS5	Our organization's leaders want this change to be implemented.	

Table 3.5 continued

Code	Item	Source
MAS6	Our management has sent a clear signal this organization is going to change.	
Change Efficacy		
CHE1	I do not expect any problems adjusting to the work I will have when this change is implemented.	Holt <i>et al.</i> , (2007)
CHE2	There are some tasks that will be required when we change that I don't think I can do well.	
CHE3	When we implement this change, I think I can handle it with ease.	
CHE4	I have the skills that are necessary to make this change work.	
CHE5	When I set my mind to it, I can learn everything that will be required when this change is implemented.	
CHE6	My past experiences make me confident that I will be able to perform successfully after this change is adopted.	
Personally Beneficial		
PEB1	I am worried I will lose some of my status in the organization when this change is made.	Holt <i>et al.</i> , (2007)
PEB2	This change will badly affect many of the personal relationships I have developed.	
PEB3	My future in this job will be limited because of this change.	
APP= Appropriateness, MAS= Management Support, CHE= Change Efficacy, PEB= Personally Beneficial.		

3.5 Questionnaire Design

The questionnaire of the current study is divided into four sections which include 75 questions. The first section consists of questions related to the respondents' characteristics such as place of work, experience, gender, age and qualification. The second section consists of 32 questions to measure leadership styles which are called transformational and transactional leadership. The third section encompasses 18 questions related to commitment towards change. The last section includes 25 questions to measure employee's readiness to change.

3.6 Pilot Study



As this study has conducted in Yemen, the researcher began with translating the language of instrument used. Subsequently other techniques were used such as forward translation, a report of experts' work, personal interview, and back translation. The sequence of the process is described below.

Table 3.6*All Variables and its Dimensions with Total Number of Items & sources*

Variables	Dimensions	Number of items	
Transformational leadership (20 items)	Idealised influence	8	Avolio and Bass (2004)
	Inspirational Motivation	4	
	Intellectual Stimulation	4	
	Individualised Consideration	4	
Transactional leadership (12 items)	Contingent Reward	4	Avolio and Bass (2004)
	Management by exception passive	4	
	Management by exception active	4	
Employee's commitment to Change (18 items)	Affective commitment	6	Herscovitch and Meyer (2002)
	Continuance commitment	6	
	Normative commitment	6	
Employee's readiness to Change (25 items)	Appropriateness	10	Holt <i>et al.</i> , (2007)
	Management Support	6	
	Change Efficacy	6	
	Personally Beneficial	3	
Total of items		75	

3.6.1 The Process of Developing the Instrument

Step 1 Forward Translation

The questionnaire comprises four different instruments each measuring the variables under the study. First, the researcher asked one bilingual expert to translate the prepared English questionnaire into the Arabic language. The objective of the forward translation is to ensure that the survey questionnaire in the Arabic language conveys the intend meaning to the Yemeni respondents. Back translation would ensure the original meaning of the survey which is the last step of translating techniques used.

Step 2 Perspectives of Experts

Four academicians and professionals experts were invited to critique the instrument. Two of them were directors of Yemen's ministry of finance in departments of human resource and planning. Two academic experts, one of them is the head of management department of Faculty of Commerce and Economics in Sana'a University and the second is academic and also working with government in taxation. The questionnaire was given to the experts. It comprised four parts two parts of leadership styles to measure by 32 items which are 20 for transformational and 12 for transactional leadership. The third section encompasses 18 items related to commitment towards change. The last section includes 25 items to measure employee's readiness to change. So altogether were 75 items.

In addition, the researcher had in depth face to face discussion the experts above for clarification of unclear items as suggested by Tojib and Sugianto (2006). The experts had provided their opinion on the appropriateness and clarity of the items. After 21 days, some feedback received from the experts. All experts pointed out some weaknesses of the instrument, for example the design of the survey. A part from that, the experts revised some Arabic words which were easier to understand.

This study adopted a pilot test in order to examine the internal consistencies of the measures before the survey distribution to gain the real data of the study. It also helps in rephrasing unclear questions and deciding the time needed to respond the questionnaires. Thus, the researcher uses the data collected from a sub-set of the respondents, to test the validity and reliability of the instruments (Sproull, 2004). The pre-test evaluation of the questionnaire was carried out through the involvement of four academicians and professionals, to receive comments on the first draft of the questionnaire (Bradburn, Sudman & Wansink, 2004).

For the purpose of the pilot study test, 40 respondents from the four ministries (Finance Ministry, Education Ministry, Health Ministry and Public Work and Highway Ministry) were asked to answer the questionnaire. In addition to that, they were asked to include their comments on the questions of the questionnaire to reduce the possibility of misunderstanding. Consequently, the questions were rephrased based on the comments of the respondents in order to increase the quality of the studied data. In addition, the collected data was tested using Cronbach's Alpha to ensure the reliability and validity of the measure. The questionnaires used for the pilot test are not included in the final data analysis of the study.

3.6.2 Pilot Study Results

According to Hair, Black, Babin, and Andersen (2010), reliability analysis is recommended to be used to assess the level of internal consistencies among the measurements of a construct. It is argued that there are many different techniques used by different researchers to assess the reliability of the construct, however the Cronbach's Alpha coefficient is the most widely used technique (Sekaran, 2003). Thus, the research opted to employ Cronbach's Alpha technique to evaluate the reliability of the scales for each constructs individually. It is recommended that the value of the Cronbach's Alpha should be greater than 0.70 as a condition to assure the reliability coefficient of the construct (Tenenhaus Esposito, Chatelin & Lauro, 2005). However, the value of 0.60 as a minimum can be an acceptable (Hair *et al.*, 2010). For the current study, Table 3.7 revealed that all the values of Cronbach's Alpha of the pilot study were within the recommended range between 0.689 and 0.928, indicating the reliability of the data.

Table 3.7
Summary Statistics of Reliability Analysis

Construct	Items	Cronbach's Alpha	Item deleted*	Cronbach's Alpha if item deleted
Idealized Influence	8	0.891	Nil	0.891
Inspirational Motivation	4	0.826	Nil	0.826
Intellectual stimulation	4	0.843	Nil	0.843
Individual consideration	4	0.735	Nil	0.735
Contingent Reward	4	0.797	Nil	0.797
Management by expectation (active)	4	0.723	Nil	0.723
Management by expectation (passive)	4	0.834	Nil	0.834
Effective Commitment	6	0.928	Nil	0.928
Continuance Commitment	6	0.689	Nil	0.689
Normative Commitment	6	0.814	Nil	0.814
Appropriateness	10	0.935	Nil	0.935
Management Support	6	0.919	Nil	0.919
Change Efficacy	6	0.867	Nil	0.867

3.7 Proposed Data Analysis Techniques

In line with the study objectives, this study uses two types of analyses, namely descriptive statistics analysis and inferential analysis technique. The descriptive statistics method helps in providing the background of the respondents and identifying the survey responses including response rates. Moreover, it provides assistances in data screening and preliminary analysis, including missing data, response bias, outliers, normality, linearity, and multicollinearity. These tests were conducted by using the Statistical Package for Social Science (SPSS), version 21. On the other hand, the inferential analysis technique was performed with the help of statistical package of Smart Partial Least Square Structural Equation Modelling (PLS-SEM) version 3.0.

According to Hair, Hult, Ringle, and Sarstedt (2014), PLS path modelling has been the key research technique utilized by researchers in different areas of research. Specifically, It has been widely used in different areas of research, including information system (IS), management science and social psychology (Henseler, Ringle, & Sinkovics, 2009; Hair Sarstedt, Ringle, & Mena, 2012; Hair, Ringle, & Sarstedt, 2013). The popularity of PLS-SEM path modelling has come from the contributions of many scholars to improve its usage and accuracy such as providing guidelines for testing moderating effects (Henseler & Fassott, 2010), utilization of confirmatory factor analysis for the verification of the measurement model and its quality evaluation (Hair, Ringle, & Sarstedt, 2011), model's goodness of fit

(Tenenhaus *et al.*, 2005), and the model's predictive relevance (Hair, *et al.*, 2011). This explains why the PLS-SEM is an important technique in the domain of research.

For this study, the research opted to utilize the PLS path modelling in testing the theoretical model of this study due to many reasons. First, the current study is causal in nature, as the main objective of this study is to examine the moderating effect of employee's commitment towards changes on the relationship between leadership styles and employee's readiness to change based on the Lewin's model and Social Exchange Theory (SET). Therefore, it is recommended to use a path modelling approach particularly when the research is prediction-oriented or an extension of an existing theory (Hair *et al.*, 2014). Considering the nature involved in the study, PLS path modelling is basically suitable to be utilized.

Second, it is argued that PLS is an appropriate statistical analysis tool for complex models and non-normal data (Hair *et al.*, 2012; Valerie, 2012). The current study examined the relationships among four variables, namely transformational leadership, transactional leadership, employee's commitment towards change and employee's readiness to change. In addition, the study model has 75 measurement items. Therefore, the complexity of the model is a reason why the PLS is the most suitable tool for a better prediction.

Third, PLS-SEM provides more accurate estimations of moderating effects through accounting for the measurement error (Henseler & Fassott 2010). All these

advantages of PLS-SEM have led the researcher to select it as the statistical analysis tool for the study.

In evaluating and interpreting the results of the PLS path model, the two-step approach, namely measurement model evaluation and structural model evaluation were employed as suggested by Henseler *et al.* (2009), Valerie (2012) and Hair *et al.* (2014). In the first step, the measurement model (outer model) was evaluated to establish its validity and reliability by evaluating indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. Table 3.8 explains the criteria for evaluating the measurement model.

Table 3.8
The criteria of the measurement model evaluation

Test	Criterion
Indicator reliability	The loading should be higher than 0.70 (Hair <i>et al.</i> , 2014; Valerie, 2012).
Internal consistency reliability	The Cronbach's alpha and composite reliability (CR) values should be higher than 0.70 (Hair <i>et al.</i> , 2011; Valerie, 2012).
Convergent validity	The AVE should be higher than 0.50 (Hair <i>et al.</i> , 2011; Valerie, 2012; Hair <i>et al.</i> , 2014).
Discriminant validity	Each indicator's loadings should load higher than all its cross loadings with other constructs based on Chin criterion. (Hair <i>et al.</i> , 2014).
	The square root of the AVE of each latent construct should be higher than its highest correlation with any other construct based on Fornell–Larcker criterion (Hair <i>et al.</i> , 2014).

On the other hand, the structural model (inner model) of the study was accessed by R-square (R^2), effect size (F^2), predictive relevance of the model, hypotheses testing and moderating testing in the second step. Table 3.9 explains the criteria for evaluating the structural and hypotheses testing model and how to examine objective one and two by path coefficients as well as moderating effect for objective three and four.

Table 3.9
The criteria of structural model evaluation

Test	Criterion
R-square (R^2)	The values of R^2 (0.75=substantial, 0.50= moderate, and 0.25= weak) for endogenous latent variables in the structural model (Hair <i>et al.</i> , 2011, Hair <i>et al.</i> , 2014).
Effect size (F^2)	The values of effect size (F^2) (0.02=weak, 0.15=moderate and 0.35=strong) in the structural model (Chin, 1998b).
Predictive relevance of the model	A research model with the cross redundancy value higher than zero is interpreted to have predictive relevance (Fornell & Cha, 1994, Hair <i>et al.</i> , 2011; Hair <i>et al.</i> 2014).
Path coefficients and Moderating effects	The outputs of bootstrapping, path coefficient, T-value and P-value that explain the significance of the path coefficients. According to Hair et al. (2014), the critical T-values for one-tailed test are 1.65 (significance level= 10%), 1.96 (significance level= 5%) and 2.58 (significance level= 1%). The minimum number of bootstrap samples should be 5000, and the number of cases should be equal to the number of observations in the original sample.

3.10 Summary of the Chapter

The methodology of the study was discussed based on the literature review and theoretical research framework followed by hypothesis development highlighted in chapter two. This chapter has discussed critically the research method that was employed in collecting data for the study. In addition to that, it provides some illustrations on the research design, sampling and data collection technique and the justification of selecting the four ministries as the population of the study. Moreover, it explains the measurements used by the study based on the relevant literature review. It also explains the pilot study procedure, pilot study results, as well as the data analysis techniques in the study.



CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter highlights the results of data analysis collected from the survey in Yemeni public sector. Two statistical packages, Statistical Package for Social Science (SPSS package version 21) and Partial Least Square (PLS-SEM package version 3.0) path modelling, were used in the analysis. The analysis begins by analysing the survey responses, including responses' rates and respondents' profiles. The data screening was performed and then the preliminary analysis is presented. The quality inspections were presented in three main sections. In the first section, the goodness of the measurement was tested to confirm indicator's reliability, internal consistency reliability, convergent validity and discriminant validity. In the second section, the second-order constructs were established to ensure they well explained by the first-order constructs. In the third section, the structural model is examined through R-square value, effect size, model's predictive relevancy, direct hypotheses testing and the moderating relationships testing. Finally, the summary of the results and conclusion are presented.

4.2 Response Rate

A total number of 768 questionnaires were distributed to employees working in the public sector, namely Ministry of Finance, Ministry of Education, Ministry of Health and Ministry of Public Work and Highway in Yemen. In order to get higher response rate, the researcher and research assistants have distributed the questionnaires to the target respondents. Moreover, an official letter for conducting a data collection from the Othman Yeop Abdullah Graduate School of Business (OYAGSB) was obtained, which officially explained the objective of the study. Four copies of the letter were submitted to the top managers of the four ministries to get more support in asking the employees to answer the questionnaires. For those who did not give back the questionnaires directly after the survey, phone call reminders and SMS were sent to their mobile number after one month from the date of questionnaires distribution. The data of the study was collected within three months starting from February 2015 to May 2015.

Due to these efforts, the researcher was able to obtain a total of 401 questionnaires. Out of these 401 questionnaires, 6 questionnaires were excluded from the analysis, as suggested by Hair *et al.* (2010) where 50 % of the questions were not answered completely and significant information was found missing. The remaining 395 questionnaires were used for the analysis representing 51% of valid response rate which is adequate based on the criterion of Sekaran (2003), which suggests that a percentage higher than 30% for response rate as an acceptable response rate for surveys. Table 4.1 below shows the response rate summary of the survey.

Table 4.1
Response Rate Summary

Response	Frequency/Rate
No. of distributed questionnaires	768
No. of questionnaires returned	401
No. of incomplete questionnaires	6
No. of usable questionnaires	395
Response rate	51%

4.3 Data Screening and Preliminary Analysis

4.3.1 Missing Data Treatment

Missing data is regarded as a major issue which should be taken into account by researchers as it affects negatively on the outcomes of empirical researches utilizing the quantitative approach (Cavana, Delahaye, & Sekaran, 2001). Furthermore, partial least squares-structural equation modelling (PLS-SEM) cannot be run if there are missing values. In this study, the original SPSS data set consists of 29,025 data points. However, 107 data points were missing which accounts for 0.37% of the missing data. Although there is no acceptable percentage of missing values in a data set among the researchers, it is recognized that 5% or less missing values are not significant and it can be replaced through mean replacement (Tabachnick & Fidell, 2007; Hair *et al.*, 2014). For the current study, only 0.37% of the missing data was found and the values were replaced with mean substitution. Table 4.2 provides more details about the missing values in each dimension of the variables and the percentage of random missing values.

Table 4.2*Missing values total and percentage*

Variables	Number of missing values
Appropriateness	13
Management Support	8
Change Efficacy	10
Personally Beneficial	3
Affective commitment	6
Continuance commitment	7
Normative commitment	9
Idealised influence	9
Inspirational Motivation	11
Intellectual Stimulation	12
Individualised Consideration	6
Contingent Reward	4
Management by exception passive	3
Management by exception active	6
Total	107

Note: A total of 107 missing values of 29,025 data points represent 0.37%

4.3.2 Outliers

The issue of outliers is considered to be one of the major data collection issues when using surveys (Hair *et al.*, 2014). Hair *et al.*, 2014 also state that when a respondent answers a particular question or all questions extremely, the outliers will be recorded. The presence of the outliers in the data sets seriously distorts the regression

coefficients estimation which misleads results in the regression analysis (Verardi & Croux, 2008). According to Hair Black, Babin, and Andersen, (2006), Mahalanobis distance is an effective technique to detect outliers because it can clearly set a cut-off point which helps researchers to identify whether a point could be assorted as an outlier or not.

On the basis of 75 observed measurement items in the current study, 118.599 ($p=0.0001$) was the threshold value of the chi-square statistics table. The Mahalanobis values that were greater than this cut-off point were excluded from the data set. Based on this criterion, the cases 166, 339, 212, 179, 185, 224, 198 and 255 were detected as outliers. Thus, they were deleted from the data set due to the fact that they could affect the outcomes of the data analysis. Therefore, the 387 cases were used for the analysis in the present study. For more details regarding the outliers' analysis, see Appendix 6.

4.3.3 Non-Response Bias Test

According to Malhotra, Hall, Shaw and Oppenheim (2006), the non-respondents sometimes vary systematically from respondents in various aspects such as attitudes, perceptions, behaviours, personalities and motivations which affect the results of the study. Malhotra, Hall, Shaw and Oppenheim (2006) also argued that the tardy respondents could be regarded as non-respondents because they would not have likely responded if they have not been followed up and reminded several times by the researcher. For the purpose of estimating the non-response bias, the respondents were classified into two main groups, namely early respondents (who responded

within one month and a half after distributing the survey, and tardy respondents (who responded after one month and a half from distribution the survey. Table 4.3 shows that a total of 324 respondents were grouped as the early respondents and the remaining 63 respondents were grouped as the tardy respondents.

Table 4.3
Non-Response Bias Test

Variables	Dimension	Group	N	Mean	Levene's Test for Equality of Variances		T-test for Equality of Means
					F	Sig.	Sig*. (2-tailed)
Transformational leadership	IDI	Early	324	2.7801	.141	.708	.901
		Tardy	63	2.7639			.903
	INM	Early	324	2.9498	.925	.337	.963
		Tardy	63	2.9563			.960
	INS	Early	324	2.7662	.040	.842	.974
		Tardy	63	2.7619			.974
Transactional leadership	INC	Early	324	2.6605	3.054	.081	.787
		Tardy	63	2.6944			.770
	COR	Early	324	2.7677	3.815	.052	.823
		Tardy	63	2.7381			.804
	MEP	Early	324	3.0702	.900	.343	.101
		Tardy	63	3.2817			.090
Employee's commitment towards change	MEA	Early	324	2.7554	1.537	.216	.612
		Tardy	63	2.6984			.582
	AFC	Early	324	4.1163	1.397	.238	.259
		Tardy	63	4.0185			.329
	COC	Early	324	2.7798	.164	.685	.433
		Tardy	63	2.7037			.431
Employee's readiness to Change	NOC	Early	324	3.6641	.160	.689	.733
		Tardy	63	3.6958			.745
	APP	Early	324	4.0182	.049	.824	.569
		Tardy	63	4.0698			.529
	MAS	Early	324	2.7366	3.084	.080	.368
		Tardy	63	2.6164			.324
	CHE	Early	324	3.5993	.005	.946	.965
		Tardy	63	3.6032			.963
	PEB	Early	324	2.1019	.015	.904	.889
		Tardy	63	2.0847			.890

*p < 0.05

IDI= Idealised influence, INM= Inspirational Motivation, INS= Intellectual Stimulation, INC= Individualised Consideration, COR= Contingent Reward, MEP= Management by Exception Passive, MEA= Management by Exception Active, AFC= Affective Commitment, COC= Continuance Commitment, NOC= Normative commitment, APP= Appropriateness, MAS= Management Support, CHE= Change Efficacy, PEB= Personally Beneficial.

In detecting the non-response bias issue, an independent sample t-test including descriptive and Levene's test were utilized to identify the difference between the early and tardy respondents on the variables of the study. The results presented in Table 4.3 showed that the equal variance significance values for all the variables of the study were not significant, which were higher than 0.05, indicating that the variances were approximately homogeneous across the two groups. Thus, it is concluded that on-response bias was not a critical concern in the current study since there were no significant variances between the early and tardy respondents. For more detailed verifications of non-respondent bias see Appendix 3.

4.3.4 Descriptive Statistics

A descriptive statistics in the form of minimum, maximum, mean and standard deviations were computed for the latent variables of the study. The outcomes of the descriptive analysis were utilized to explain the perceived level of Transformational Leadership style (TFL), Transactional Leadership style (TAL), Employee's Commitment towards Change (ECC) capability and Employee's Readiness to Change (ERC) among the employees of the public sectors in Yemen. The current study employed a five point Likert scale to measure the constructs, this scale anchored by the value of 1 representing "strongly disagree" to the value of 5 representing "strongly agree". In order to interpret the five point Likert scale, three classifications have been set, classified low when the values are less than 2.33 [$4/3 +$ lowest value (1)], high when the values are more than 3.67 [highest value (5) - $4/3$] and moderate when the scores are between low and high.

The overall mean for the dimensions of the constructs ranged within 4.10 to 2.099, suggesting that all the dimensions were in the high and moderate level, except Personally Beneficial (PEB) dimension, which was low levelled as shown in Table 4.4.

Table 4.4
Descriptive Statistics of the Constructs (N=387)

Construct	Dimension	N	Minimum	Maximum	Mean	Std. Deviation
Transformational leadership	IDI	387	1.00	5.00	2.778	.941
	INM	387	1.00	5.00	2.951	.812
	INS	387	1.00	5.00	2.766	.950
	INC	387	1.00	5.00	2.666	.912
Transactional leadership	COR	387	1.00	5.00	2.763	.962
	MEP	387	1.00	5.00	3.105	.938
	MEA	387	1.00	5.00	2.746	.815
Employee's commitment towards change	AFC	387	1.00	5.00	4.100	.629
	COC	387	1.00	5.00	2.767	.705
	NOC	387	1.00	5.00	3.669	.673
Employee's readiness to change	APP	387	1.00	5.00	4.027	.657
	MAS	387	1.00	5.00	2.717	.970
	CHE	387	1.00	5.00	3.600	.638
	PEB	387	1.00	5.00	2.099	.8915

IDI= Idealised influence, INM= Inspirational Motivation, INS= Intellectual Stimulation, INC= Individualised Consideration, COR= Contingent Reward, MEP= Management by Exception Passive, MEA= Management by Exception Active, AFC= Affective Commitment, COC= Continuance Commitment, NOC= Normative commitment, APP= Appropriateness, MAS= Management Support, CHE= Change Efficacy, PEB= Personally Beneficial.

In particular, the results show that the dimensions of transformational leadership, namely, Idealised Influence, Inspirational Motivation, Intellectual Stimulation and Individualised Consideration had a moderate level of perception with mean values of 2.78, 2.95, 2.77 and 2.67 and standard deviation values of 0.94, 0.81, 0.95 and 0.912 respectively. This means that the public sectors' management has not given proper

attention to transformational leadership practices in Yemen. The high standard deviation values suggest that the perception of respondents about the transformational leadership practices were significantly different.

The results also showed that transactional leadership dimensions namely, Contingent Reward, Management by Exception Passive and Management by Exception Active show a moderate level of perception with mean values of 2.76, 3.10 and 2.75 and standard deviation values of 0.96, 0.94 and 0.815 respectively.

For employee's commitment towards change dimensions, the results show Affective Commitment and Normative Commitment had a high level of perception with mean values of 4.10 and 3.67 whereas Continuance Commitment had a moderate level of perception with a mean value of 2.77 and standard deviation values of 0.63, 0.67 and 0.70 respectively.

For employee's readiness to change, the results of one of its dimensions namely, Appropriateness, had a high level of perception with a mean value of 4.03. The other dimensions show moderate levels of perception with mean values of 2.72, 3.60 and 2.10 for Management Support, Change Efficacy and Personally Beneficial and standard deviation values of 0.66, 0.97, 0.64 and 0.89 respectively.

4.3.5 Normality Test

The normality test was regarded the required assumption in multivariate analysis and in most statistical tests (Hair *et al.*, 2010) because any substantial violation of this

assumption may lead to unreliable results. Normality refers to the symmetrical distribution of data, forming the greatest frequency around the mean that shape the bell curve (Pallant, 2005). Among different ways to assess normality, it is recommended to use skewness and kurtosis values to show the data distribution shape (Pallant, 2005).

Skewness is a measure which shows to what extent a distribution of data deviates from the centre around the mean (George & Mallery, 2006). It was also stated that, by nature many scales and measures are positively or negatively skewed in social science researches (Pallant, 2005). According to Hair *et al.* (2010), the values of skewness must range between +1 and -1 for the data to be described as normal data. However, Kline (1998) suggests that the threshold between +3 and -3 is acceptable. Using the suggestion by Kline (1998), the results in Table 4.5 shows that the skewness values of the constructs under the study were found to be within the range of +3 and -3, indicating a normal distribution of the data.

Kurtosis is an indicator to detect whether the data set are peaked or flatted, relative to a normal distribution. The kurtosis values can be negative or positive where negative values refer to a flatter distribution while positive values refer to a more peaked distribution (George & Mallery, 2006). In respect to the cut-off point of kurtosis values range, it is recommended to be between +3 and -3 (Coakes & Steed, 2003), while authors such as Hu, Bentler, and Kano (1992) use the range of +7 to -7. In this study as illustrated in Table 4.5, all kurtosis values range between +7 and -7 values. Thus, the cut-off point by Hu, Bentler, and Kano (1992) can be referred to the data in

this study. As the data has no problem with both skewness and kurtosis, it is proven that the data is normal.

In conclusion, the results of normality test showed that the normality assumption was not violated. This indicates that all the data representing the constructs of the study were normally distributed. See Appendix 5 for more information regarding normality test.

As the PLS-SEM can provide adequate model estimations, even in situations that are extremely non-normal (Reinartz, Heinlein & Henseler, 2009; Hair *et al.*, 2011; Hair *et al.*, 2014), the use of PLS-SEM could provide support to the analysis.

Table 4.5
Normality Test

Construct	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Idealised influence	.019	.124	-.836	.247
Inspirational Motivation	-.229	.124	-.711	.247
Intellectual Stimulation	.054	.124	-.456	.247
Individualised Consideration	.083	.124	-.523	.247
Contingent Reward	-.026	.124	-.740	.247
Management by exception passive	-.357	.124	-.543	.247
Management by exception active	-.024	.124	-.104	.247
Affective commitment	-.875	.124	1.319	.247
Continuance commitment	-.183	.124	.156	.247
Normative commitment	-.238	.124	.272	.247
Appropriateness	-1.428	.124	5.857	.247
Management Support	.107	.124	-.565	.247
Change Efficacy	-1.174	.124	3.658	.247
Personally Beneficial	.705	.124	.232	.247

4.3.6 Linearity Test

Testing linearity is crucial to predict the right direction of hypotheses, when the residuals have a straight line association with dependent variables (Pallant, 2005). The positive value shows the existence of a positive relationship between the independent and the predicted dependent variable. According to Hair *et al.* (2006), it is imperative that each independent variable's relationship is linear to guarantee the best representation in the equation and achieve the objective of homoscedasticity of the data. The normal P-P plot of regression standardized residual plot method was employed to test each independent variable's relationship with the dependent variable. In addition to that, all scatter plots related to these relationships were produced. Based on the results of linearity testing, the histograms and scatter plot diagrams are displayed graphically in (see Appendix 6), showing a linear pattern to the residuals. By looking at the plots, it is obvious that there is no U-shaped or other curvilinear relationships; therefore, the linearity assumptions are met in the study.

4.3.7 Multicollinearity

It is highly recommended to test multicollinearity among the independent variables of the study before testing the study model (Hair *et al.*, 2010). The multicollinearity occurs when there is a higher linear correlation among two or more independent variables in a multiple regression test (Hair *et al.*, 2014). A collinearity is called when only two independent variables are involved (Hair *et al.*, 2014). The existence of multicollinearity among the exogenous latent variables produces estimation problem which results in a poor or "strange" estimate of the regression coefficient, large

standard error, and reduced power of the statistical test of the interaction (Hayes, 2013).

To detect the multicollinearity, there are many methods such as the tolerance value, the variance influence factor (VIF) and Pearson correlation. This study used the tolerance value and the Variance Influence Factor (VIF) as they have been recognized to be widely used by researchers (O'Brien, 2007), in addition to the Pearson correlation method. According to Hair *et al.* (2014), the threshold values for both the tolerance value and VIF are 0.20 and 5.00 respectively, and whenever the value of tolerance is above 0.20 and the value of VIF is less than 5.00, it indicates that multicollinearity is not an issue. The results in Table 4.6 suggest that there was no multicollinearity as the values of tolerance ranged between 0.702 and 0.984 and the values of variance influence factor ranged between 1.016 and 1.425. Therefore, it can be concluded that there is no multicollinearity among the independent variables. The output of multicollinearity test is shown in Appendix 7.

Table 4.6
Muticollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
Transformational Leadership	Employee's readiness to Change	0.702	1.425
Transactional Leadership		0.692	1.445
Employee's commitment towards change		0.984	1.016

Hair *et al.* (2010) suggest the rule of thumb to detect multicollinearity. They suggest if the significant correlation between the independent variables has a value higher than 0.90, then this indicates the existence of multicollinearity. As shown in Table

4.7, the values of Pearson correlation were less than the cut-off point of 0.90 suggesting that there was no multicollinearity between the predicted variables.

Table 4.7
Pearson Correlations of the Study Variables

	TFL	TAL	ECC
Transformational Leadership (TFL)	1		
Transactional Leadership (TAL)	.545**	1	
Employee's commitment towards change (ECC)	.037	.122*	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

An overall examination of the data showed that the basic assumptions, such as normality and linearity with no multicollinearity, are not considered major issues and concerns in the current study. The next step is the evaluation of the study model, including the goodness of measures and structural model. A detailed discussion about these two approaches is presented in the following section.

4.3.8 Respondents' Profile

The descriptive analysis was employed to describe the respondents' profile in terms of the responders' gender, age, qualifications, name of ministry, working experiences (number of years serving in the current position) and participation in the process of changes (Table 4.8).

In term of gender the study shows that 87.3% are male and 12.7% are female. Age wise, 68.6% respondents were considered qualified, with most respondents

categorised between 30-39 years (41.5%) followed by respondents aging between 40-49 years (27.1%), 20-29 years (20%) and above 50 years (11.4%). The accepted age ranges for the study were 30-39 years and 40-49 years.

In addition to that, the profile of the respondents shows that 73.7% are high educated (63.3% as bachelor degree, 8.6% as master degree and 1.8% with doctorate). 41.5% of respondents' have experiences of more than 16 years, 16.2% were working for a period between 11 to 15 years, 22.0% worked for 6 to 10 years and 20.3% were in work for less than 6 years in the ministries but only 24.3% of respondents are engaged in at least one program of automated finance management system projects while others may have engaged in because it is applied over the ministries but could not recognizing the program.

Table 4.8
The Respondents' Profile (N=395)

Variables	Category	N	%
Gender	Male	345	87.3
	Female	50	12.7
Age	20-29 years	79	20.0
	30-39 years	164	41.5
	40-49 years	107	27.1
	over 50 years	45	11.4
Qualification	High school	56	14.2
	Diploma	48	12.2
	Bachelor	250	63.3
	Master	34	8.6
	PhD	7	1.8
Ministry	Ministry of Finance	103	26.1
	Ministry of Public Work & Urban development	95	24.1
	Ministry of Education	102	25.8
	Ministry of Public Health & Population	95	24.1
Working Experience	1-5 years	80	20.3
	6-10 years	87	22.0
	11-15 years	64	16.2
	16 years and more	164	41.5
Participation in the Change	Yes	96	24.3
	No	299	75.7

Concerning the types of work place, 26.1% of respondents were from Ministry of Finance, 25.8% of them from Ministry of Public Work and Urban Development, 24.1% are working in Ministry of Education and 24.1% in Ministry of Public Health and Population.

4.4 Quality Model Evaluation

The quality model assessment was done using the software package PLS-SEM, version 3.0. This software has been widely used by many researchers from different disciplines, such as marketing, strategic management, management information system, organizational behaviour and customer behaviour (Henseler *et al.*, 2009; Ringle, Wende, & Becker, 2014). In order to use PLS-SEM, it is crucial to conduct advanced analyses which extend and distinct the initial PLS-SEM findings in order to get a valid and complete understanding of the results (Hair *et al.*, 2014). In doing so, the study adopted the two-step process, namely (i) measurement model evaluation and (ii) structural model evaluation, to assess and interpret the results of the PLS path model (refer to Straub, Boudreau, & Gefen, 2004; Lewis, Templeton, & Byrd, 2005; Henseler *et al.*, 2009; Urbach & Ahlemann, 2010; Hair *et al.* 2012; Hair *et al.* 2014). Figure 4.1 shows the two-step process of the quality model evaluation.

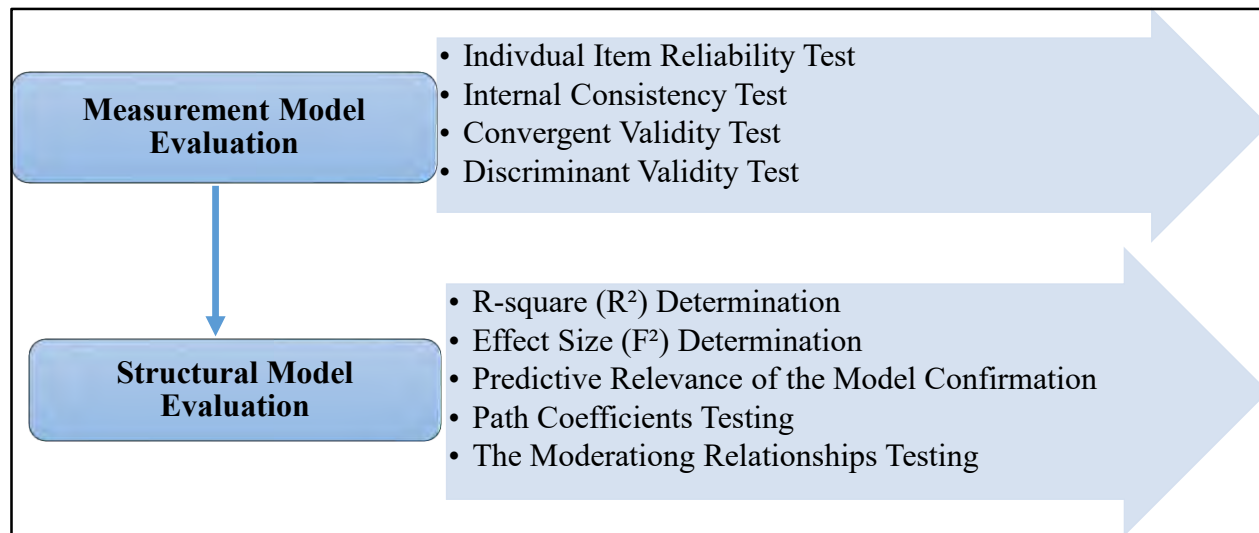


Figure 4.1

A Two-step Process of PLS-SEM Evaluation Source: Henseler *et al.* (2009)

The next subsections present and report the results of quality model assessment, measurement model test and structural model test, for this study.

4.4.1 Measurement Model Evaluation

The measurement was evaluated in order to confirm the validity and reliability of the output of the analysis processes using the PLS -SEM technique. Based on Hair *et al.* (2014), Hair *et al.* (2011) and Henseler *et al.* (2009), this study assessed indicator reliability, internal consistency reliability, convergent validity and discriminant validity before testing the hypotheses of the model. Figure 4.2 depicts below shows the original research model, including measurement items, dimensions, variables and the hypothesized relationships.

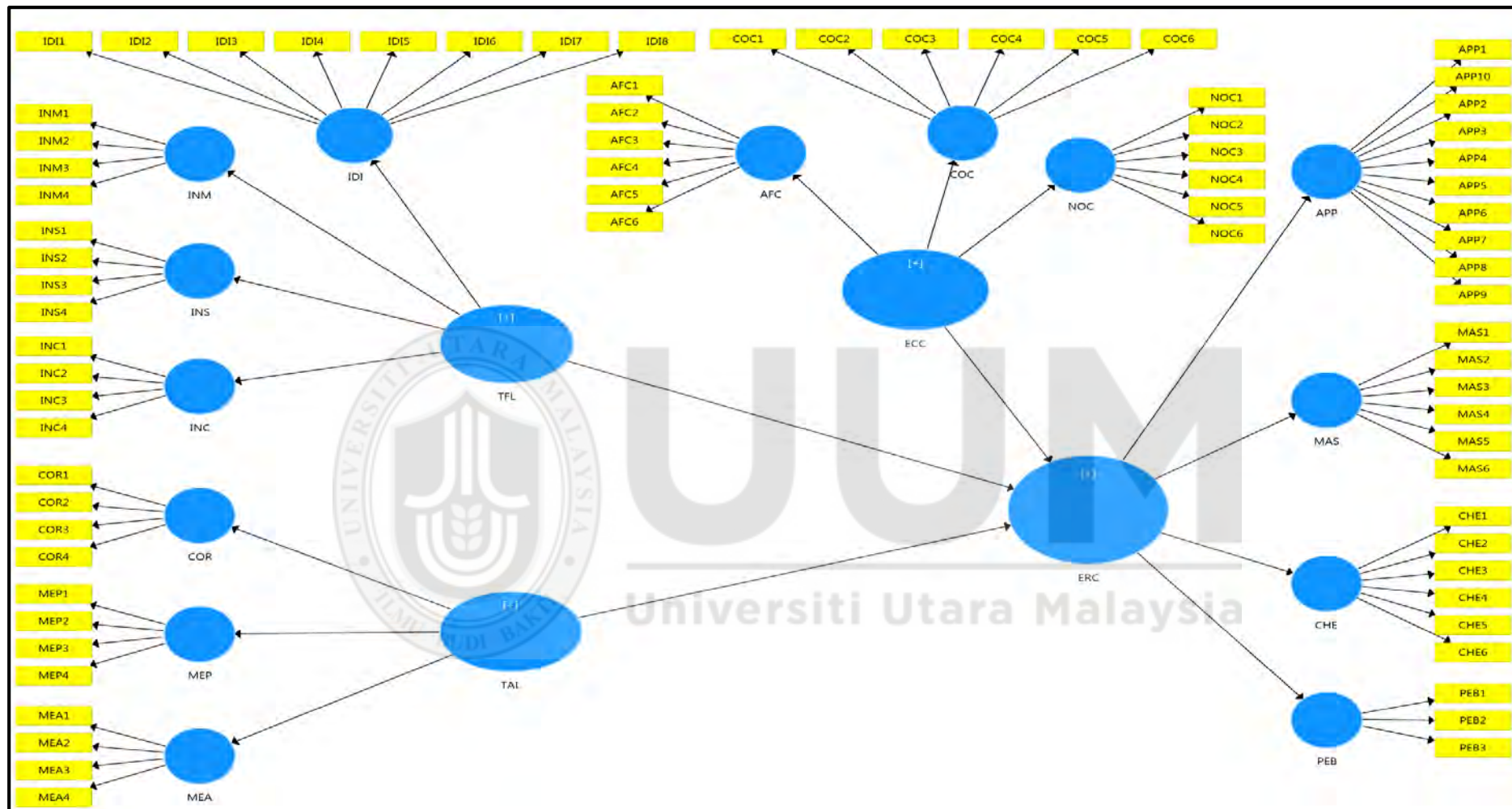


Figure 4.2 *The Original Research Model*

Note: TFL=Transformational Leadership, TAL=Transactional Leadership, ECC= Employee's commitment towards change, ERC=Employee's readiness to Change.

4.4.1.1 Individual Item Reliability

The indicator reliability was examined according to outer loadings of each measurement, intended to measure a construct where the factor loading of items should be significantly higher than 0.70 (Hair *et al.*, 2011; Valerie, 2012). However, Hair *et al.* (2014) suggested that a factor loading more than 0.40 is acceptable if the Composite Reliability and AVE are on the acceptable level. Following this criteria, a total of 17 items out of 75 items were deleted as their loadings were lower than the recommended value of 0.40. They were AFC3 (0.200), AFC5 (0.199), AFC6 (0.351), APP9 (0.135), APP10 (0.387), CHE1 (0.220), CHE2 (0.216), COC1 (0.304), COC2 (0.305), COC5 (0.093), COC6 (0.216), IDI1 (0.504), INC2 (0.356), NOC3 (-0.109), NOC4 (0.187), NOC5 (0.390) and NOC6 (-0.020). Out of 75 items, 58 items were retained to be used in the further analysis as they had loadings of more than 0.46 as illustrated in Table 4.9. Thus, it is concluded that the indicator reliability of the model measures was established, as all the items exceeded the cut-off point value of 0.46 and confirmed to be significant.

4.4.1.2 Internal Consistency Reliability

In order to test the internal consistency reliability, Cronbach's alpha along with Composite Reliability (CR) which are the most common indicators used to check the reliability of the internal consistency in the organizational research discipline, are utilized in the study (Peterson & Kim, 2013). The Cronbach's alpha is very sensitive to the number of items in the measurements, so it tends to underestimate the internal

consistency reliability of the measurements. Therefore, it can be utilized as a conservative method to measure the internal consistency reliability (Hair *et al.*, 2014). The threshold values of both Cronbach's alpha and CR values should be higher than 0.70 (Tenenhaus *et al.*, 2005; Hair *et al.*, 2011; Valerie, 2012).

In this study, the CR values of all the constructs exceeded the minimum acceptable value of 0.70; specifically they ranged between 0.816 and 0.960. In addition, all the values of all constructs ranged between 0.699 and 0.936 as shown in Table 4.9. Thus, it can be concluded that the internal consistency reliability of the measures was verified and confirmed.



Table 4.9
Internal Consistency Analysis

Construct	Items	Loadings	CR ^a	AVE ^b
Idealised influence	IDI2	0.791	0.932	0.664
	IDI3	0.849		
	IDI4	0.802		
	IDI5	0.878		
	IDI6	0.771		
	IDI7	0.852		
	IDI8	0.754		
	INC1	0.845		
Individualised Consideration	INC3	0.801	0.882	0.714
	INC4	0.887		
	INM1	0.869		
Inspirational Motivation	INM2	0.879	0.923	0.751
	INM3	0.864		
	INM4	0.853		
	INS1	0.776		
Intellectual Stimulation	INS2	0.830	0.873	0.633
	INS3	0.730		
	INS4	0.842		
Transformational leadership	Idealised influence	0.907	0.773	0.931
	Individualised Consideration	0.835		
	Inspirational Motivation	0.883		
	Intellectual Stimulation	0.885		

Table 4.9 continued

Construct	Items	Loadings	CR ^a	AVE ^b
Contingent Reward	COR1	0.886	0.954	0.776
	COR2	0.866		
	COR3	0.870		
	COR4	0.821		
Management by exception active	MEA1	0.669	0.848	0.584
	MEA2	0.824		
	MEA3	0.736		
	MEA4	0.818		
Management by exception passive	MEP1	0.670	0.859	0.606
	MEP2	0.845		
	MEP3	0.811		
	MEP4	0.776		
Transactional leadership	Contingent Reward	0.773	0.592	0.811
	Management by exception active	0.875		
	Management by exception passive	0.643		
Affective commitment	AFC1	0.851	0.872	0.696
	AFC2	0.898		
	AFC4	0.746		
	AFC1	0.851		
Continuance commitment	AFC2	0.898	0.872	0.696
	AFC4	0.746		
	NOC1	0.936		
Normative commitment	NOC2	0.713	0.816	0.693
Affective commitment		0.952		
Employee's commitment towards change	Continuance commitment	0.930	0.710	0.876
	Normative commitment	0.599		

Table 4.9 continued

Construct	Items	Loadings	CR ^a	AVE ^b
Appropriateness	APP1	0.737	0.960	0.751
	APP2	0.820		
	APP3	0.936		
	APP4	0.884		
	APP5	0.917		
	APP6	0.922		
	APP7	0.828		
	APP8	0.870		
Management Support	MAS1	0.833	0.954	0.776
	MAS2	0.882		
	MAS3	0.835		
	MAS4	0.903		
	MAS5	0.920		
	MAS6	0.910		
	CHE3	0.787		
	CHE4	0.904		
Change Efficacy	CHE5	0.875	0.918	0.737
	CHE6	0.865		
	PEB1	0.866		
	PEB2	0.856		
	PEB3	0.723		
Employee's readiness to Change	Appropriateness	0.932	0.5	0.73
	Management Support	0.477		
	Change Efficacy	0.878		
	Personally Beneficial	0.110		

Note: CR > 0.7 and AVE > 0.5
 Note: AVE (Average Variance Extracted) = (summation of the square of the factor loadings) / {(summation of the square of the factor loadings) + (summation of the error variances)}; Composite Reliability (CR) = (square of the summation of the factor loadings) / {(summation of the square of the factor loadings) + (summation of the square of the error variances)}.

4.4.1.3 Convergent Validity

In order to verify the convergent validity on the construct level, Hair *et al.* (2014) suggested using the Average Variance Extracted (AVE) as it has become a widespread method. As a rule of thumb, the AVE of each latent construct should be higher than 0.50, in order to establish an adequate convergent validity (Hair *et al.*, 2011; Valerie, 2012; Hair *et al.*, 2014). In this study, Table 4.9 above showed that all the values of AVE were in the acceptable range between 0.584 and 0.832, indicating an adequate convergent validity. Thus, the convergent validity was confirmed in this study.

4.4.1.4 Discriminant Validity

The study uses the cross loadings of the items and Fornell-Larcker criterion to measure the discriminant validity as suggested by Hair *et al.* (2014). In examining the cross loadings of the indicators, an item's outer loading on the related construct should be higher than all of its loadings on other constructs. In other words, each items should load higher on the construct designed to measure and lower the other constructs (i.e. the cross loadings). Table 4.10 below shows that all the items loadings were higher than respective cross loadings indicating verified discriminant validity.

Table 4.10

Discriminant Validity

Items	AFC	APP	CHE	COC	COR	IDI	INC	INM	INS	MAS	MEA	MEP	NOC	PEB
AFC1	0.851	0.437	0.255	0.904	0.196	0.177	0.139	0.260	0.148	0.166	0.218	0.217	0.343	-0.112
AFC2	0.898	0.535	0.461	0.917	0.031	0.132	-0.033	0.168	0.056	0.168	0.055	0.138	0.346	-0.107
AFC4	0.746	0.286	0.235	0.520	-0.066	-0.028	-0.116	-0.018	-0.068	0.050	-0.037	0.055	0.337	-0.001
APP1	0.516	0.737	0.590	0.560	0.058	0.292	0.055	0.201	0.123	0.233	0.251	0.184	0.358	-0.018
APP2	0.453	0.820	0.576	0.480	0.000	0.175	-0.045	0.100	0.023	0.170	0.056	-0.099	0.295	-0.048
APP3	0.472	0.936	0.757	0.509	-0.085	0.181	-0.110	0.101	0.008	0.175	0.007	-0.053	0.426	-0.043
APP4	0.347	0.884	0.739	0.360	-0.084	0.124	-0.114	0.078	-0.064	0.169	-0.007	-0.079	0.309	-0.067
APP5	0.466	0.917	0.760	0.505	-0.033	0.165	-0.040	0.122	0.049	0.203	0.071	-0.042	0.439	-0.039
APP6	0.520	0.922	0.731	0.520	-0.059	0.158	-0.155	0.086	-0.012	0.217	0.079	0.026	0.473	-0.016
APP7	0.343	0.828	0.700	0.354	-0.174	0.034	-0.191	0.105	-0.075	0.043	-0.016	-0.171	0.295	-0.011
APP8	0.444	0.870	0.765	0.445	-0.134	0.179	-0.173	0.129	-0.048	0.168	-0.008	-0.096	0.359	0.060
CHE3	0.316	0.692	0.787	0.323	-0.010	0.126	-0.057	0.081	-0.025	0.167	-0.031	-0.123	0.270	-0.058
CHE4	0.327	0.679	0.904	0.333	-0.077	0.064	-0.173	0.051	-0.052	0.129	0.047	-0.040	0.293	-0.075
CHE5	0.367	0.707	0.875	0.379	-0.028	0.184	-0.020	0.147	0.042	0.230	0.149	0.101	0.387	0.005
CHE6	0.321	0.715	0.865	0.332	-0.129	0.103	-0.171	0.062	-0.081	0.128	0.045	-0.067	0.326	0.006
COC3	0.845	0.446	0.264	0.907	0.189	0.186	0.133	0.259	0.150	0.170	0.214	0.219	0.354	-0.111
COC4	0.893	0.531	0.458	0.918	0.033	0.134	-0.030	0.167	0.057	0.166	0.061	0.140	0.342	-0.108
COR1	0.045	-0.052	-0.053	0.099	0.886	0.631	0.805	0.640	0.672	0.564	0.479	0.132	0.026	0.046
COR2	0.076	-0.065	-0.111	0.100	0.866	0.555	0.738	0.600	0.703	0.492	0.425	0.085	0.000	0.147
COR3	0.047	-0.032	0.006	0.075	0.870	0.559	0.627	0.619	0.592	0.574	0.490	0.152	0.127	0.130
COR4	0.083	-0.117	-0.095	0.139	0.821	0.491	0.591	0.525	0.561	0.484	0.395	0.143	0.008	-0.029

Table 4.10 continued

Items	AFC	APP	CHE	COC	COR	IDI	INC	INM	INS	MAS	MEA	MEP	NOC	PEB
IDI2	0.162	0.251	0.188	0.216	0.477	0.791	0.491	0.467	0.471	0.569	0.310	0.069	0.084	0.069
IDI3	0.130	0.157	0.118	0.176	0.525	0.849	0.544	0.601	0.578	0.622	0.250	0.009	0.092	0.119
IDI4	0.051	0.217	0.212	0.085	0.437	0.802	0.384	0.467	0.441	0.464	0.132	0.001	0.165	-0.023
IDI5	0.043	-0.001	-0.001	0.080	0.662	0.878	0.675	0.633	0.680	0.591	0.341	0.025	0.097	0.079
IDI6	0.097	0.114	0.101	0.131	0.536	0.771	0.589	0.635	0.678	0.411	0.359	-0.021	0.209	-0.001
IDI7	0.067	0.147	0.100	0.126	0.555	0.852	0.498	0.670	0.585	0.466	0.304	0.142	0.150	0.151
IDI8	0.157	0.233	0.117	0.200	0.487	0.754	0.432	0.566	0.481	0.425	0.174	0.108	0.193	0.107
INC1	-0.041	-0.173	-0.269	-0.007	0.647	0.550	0.845	0.581	0.712	0.395	0.346	-0.014	0.000	0.028
INC3	0.040	-0.065	0.009	0.074	0.696	0.514	0.801	0.541	0.634	0.536	0.430	0.102	-0.029	0.098
INC4	0.011	-0.050	-0.043	0.070	0.695	0.560	0.887	0.602	0.637	0.500	0.364	-0.021	-0.025	0.074
INM1	0.133	0.113	0.084	0.188	0.585	0.649	0.531	0.869	0.636	0.488	0.372	0.090	0.144	0.099
INM2	0.200	0.197	0.167	0.233	0.526	0.577	0.567	0.879	0.644	0.434	0.378	0.125	0.279	0.135
INM3	0.104	0.066	0.064	0.157	0.589	0.591	0.558	0.864	0.619	0.550	0.374	0.141	0.137	0.170
INM4	0.168	0.080	0.036	0.225	0.697	0.651	0.696	0.853	0.685	0.538	0.336	0.118	0.117	0.069
INS1	-0.002	0.083	0.031	0.039	0.569	0.555	0.586	0.622	0.776	0.517	0.388	0.044	0.068	0.136
INS2	0.049	-0.098	-0.143	0.114	0.569	0.559	0.603	0.585	0.830	0.321	0.347	-0.065	-0.032	-0.035
INS3	0.160	0.035	0.067	0.159	0.527	0.464	0.558	0.546	0.730	0.424	0.269	-0.021	0.093	0.083
INS4	0.008	-0.019	-0.049	0.055	0.663	0.620	0.731	0.621	0.842	0.432	0.360	0.022	0.019	0.010
MAS1	0.162	0.259	0.232	0.174	0.520	0.478	0.484	0.465	0.465	0.833	0.337	-0.024	0.128	0.308
MAS2	0.076	0.153	0.139	0.100	0.563	0.604	0.527	0.531	0.510	0.882	0.294	-0.001	0.166	0.292
MAS3	0.188	0.119	0.158	0.189	0.500	0.509	0.453	0.520	0.439	0.835	0.238	-0.043	0.177	0.282
MAS4	0.149	0.175	0.133	0.170	0.576	0.549	0.496	0.524	0.497	0.903	0.296	0.069	0.171	0.366

Table 4.10 continued

Items	AFC	APP	CHE	COC	COR	IDI	INC	INM	INS	MAS	MEA	MEP	NOC	PEB
MAS5	0.137	0.158	0.208	0.182	0.510	0.527	0.456	0.492	0.409	0.920	0.378	0.097	0.222	0.358
MAS6	0.128	0.170	0.124	0.152	0.584	0.639	0.557	0.544	0.489	0.910	0.361	0.043	0.226	0.386
MEA1	0.086	0.110	0.116	0.076	0.163	0.057	0.089	0.214	0.150	0.046	0.669	0.470	0.361	0.123
MEA2	0.061	0.026	0.057	0.093	0.367	0.255	0.351	0.277	0.312	0.197	0.824	0.492	0.252	0.126
MEA3	0.093	0.019	-0.108	0.158	0.543	0.346	0.467	0.404	0.435	0.400	0.736	0.250	0.046	0.173
MEA4	0.075	0.040	0.139	0.122	0.480	0.325	0.418	0.378	0.389	0.428	0.818	0.295	0.141	0.181
MEP1	0.027	-0.178	-0.202	0.045	0.149	0.005	0.046	0.057	-0.058	-0.020	0.327	0.670	0.223	0.037
MEP2	0.136	-0.060	-0.077	0.161	0.103	0.069	0.033	0.072	-0.051	0.020	0.409	0.845	0.280	0.040
MEP3	0.173	0.040	0.067	0.206	0.122	0.058	0.004	0.139	0.057	0.110	0.439	0.811	0.298	0.112
MEP4	0.180	0.031	0.089	0.186	0.093	0.040	-0.005	0.157	0.031	-0.041	0.325	0.776	0.276	0.067
NOC1	0.455	0.483	0.399	0.423	0.116	0.263	0.036	0.270	0.127	0.206	0.290	0.353	0.936	0.030
NOC2	0.147	0.145	0.169	0.140	-0.106	-0.081	-0.126	-0.037	-0.141	0.118	0.069	0.193	0.713	0.091
PEB1	-0.090	-0.048	-0.056	-0.098	0.148	0.104	0.156	0.187	0.106	0.410	0.254	0.080	0.086	0.866
PEB2	-0.079	0.014	0.007	-0.113	0.008	0.055	-0.024	0.055	-0.006	0.237	0.079	0.052	0.008	0.856
PEB3	-0.007	-0.095	-0.095	-0.052	0.002	0.029	0.056	0.021	0.041	0.282	0.185	0.150	0.088	0.723

Note: Bold values are loading for items which are above the recommended value of 0.5.

APP= Appropriateness, CHE= Change Efficacy, COC= Continuance Commitment, COR= Contingent Reward, AFC= Affective Commitment, IDI= Idealised influence, INC= Individualised Consideration, INM= Inspirational Motivation, INS= Intellectual Stimulation, MAS= Management Support, MEA= Management by Exception Active, MEP= Management by Exception Passive, NOC= Normative commitment, PEB= Personally Beneficial.

For the Fornell-Larcker criterion, the square root of AVE values should be compared with correlations of each latent construct as the requirement to achieve discriminant validity. In other words, the square root of each latent construct's AVE should be greater than its highest correlation with any other latent construct. This criterion is considered as a more conservative method for evaluating discriminant validity (Hair *et al.*, 2014).

As shown in Table 4.11, all the square root of the AVE values exceeded the correlations of latent construct, suggesting that the discriminant validity was established in the current study.



Table 4.11

Correlation and Discriminant Validity

	AFC	APP	CHE	COC	COR	IDI	INC	INM	INS	MAS	MEA	MEP	NOC	PEB
AFC	0.834													
APP	0.513	0.867												
CHE	0.388	0.814	0.859											
COC	0.654	0.537	0.399	0.912										
COR	0.072	-0.076	-0.071	0.119	0.861									
IDI	0.121	0.187	0.140	0.175	0.651	0.815								
INC	0.003	-0.114	-0.122	0.053	0.803	0.641	0.845							
INM	0.175	0.131	0.100	0.232	0.694	0.714	0.680	0.866						
INS	0.062	-0.001	-0.033	0.112	0.734	0.694	0.782	0.747	0.796					
MAS	0.160	0.199	0.191	0.184	0.616	0.624	0.563	0.580	0.531	0.881				
MEA	0.102	0.059	0.063	0.148	0.521	0.334	0.448	0.421	0.431	0.363	0.764			
MEP	0.169	-0.049	-0.035	0.196	0.149	0.057	0.024	0.137	-0.005	0.027	0.486	0.779		
NOC	0.409	0.429	0.373	0.381	0.049	0.172	-0.021	0.195	0.044	0.205	0.250	0.347	0.832	
PEB	-0.094	-0.026	-0.034	-0.120	0.087	0.090	0.078	0.135	0.059	0.378	0.198	0.084	0.059	0.818

Note: Diagonals (in bold) represent the square root of AVE while the other entries (off-diagonal) represent the correlation.

APP= Appropriateness, CHE= Change Efficacy, COC= Continuance Commitment, COR= Contingent Reward, AFC= Affective Commitment, IDI= Idealised influence, INC= Individualised Consideration, INM= Inspirational Motivation, INS= Intellectual Stimulation, MAS= Management Support, MEA= Management by Exception Active, MEP= Management by Exception Passive, NOC= Normative commitment, PEB= Personally Beneficial.

4.4.2 First-Order and Second-Order Constructs

Initially, the differences between the first and the second order measurement models should be provided before going further to assess the theoretical and conceptual aspect of the second order constructs. According to Hair *et al.* (2014), a first-order construct, also referred as lower-order component, is a sub-dimension of the higher-order component in a hierarchical component model. The first-order is measured by a single dimension comprising of a set of indicators. While the second-order is also referred as higher-order component, it consists of two or more lower-order components in a reflective or formative way. The second-order constructs are measured by two or more dimensions. As shown below in Figure 4.3, Contingent Reward (COR) as a latent construct is measured by a set of measured indicators namely COR 1, COR 2, COR3 and COR4.

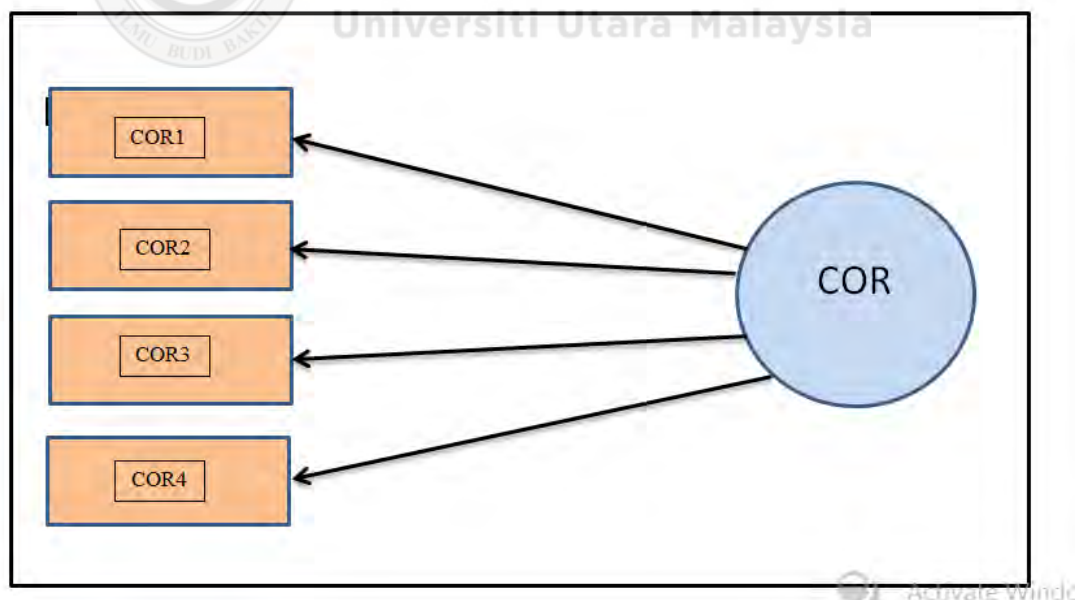


Figure 4.3
First-order Measurement of Contingent Reward (COR)

In Figure 4.4 below, Transactional Leadership (TAL) construct was measured indirectly by twelve items through another layer of latent constructs namely, Contingent Reward (COR), Management by Exception Active (MEA) and Management by Exception Passive (MEP). Thus, TAL is considered a second-order measurement model. The second-order factor structure has two layers of latent variables. In this study there were four second-order constructs namely TFL, TAL, ECC capability and ERC. The following subsection provides more clarification and justification for using TFL, TAL, ECC capability and ERC as second-order variable models.

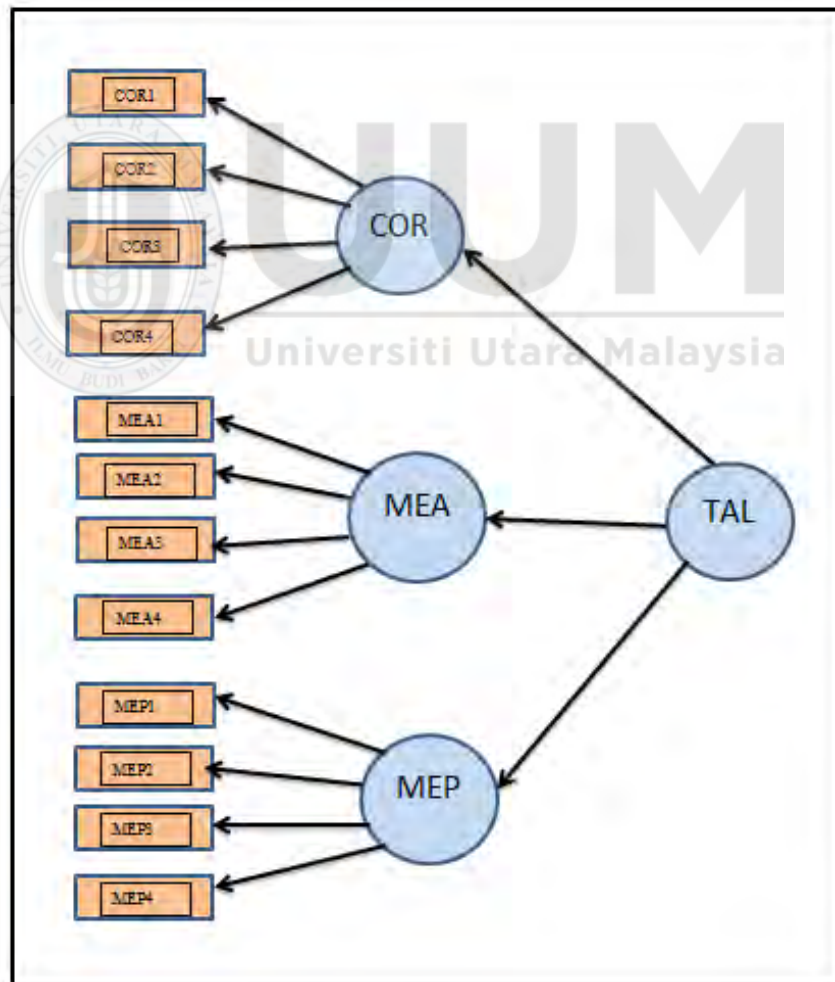


Figure 4.4
Second-order Measurement of Transactional leadership (TAL)

4.4.2.1 The Second-Order Constructs Establishment

As discussed in the previous section, the first-order construct refers to the link between the indicators and its dimensions, while the second order construct refers to the link between the dimensions and the latent construct.

In this study, there are four second-order latent constructs namely, TFL, TAL, ECC and ERC performance. It is essential to examine whether the first order constructs were qualified to be conceptually explained by the respective second-order construct before proceeding to assess the research model. Thus, the first-order constructs should be explained well by the hypothesized second-order construct and they should be distinctive (Byrne, 2010). As shown in Table 4.12, the first order constructs are explained well by the second-order constructs since the R-square ranged within 0.907 and 0.912 as shown in Table 4.12. Furthermore, Table 4.11 showed that these constructs were confirmed to be distinctive, using the criterion suggested by Fornell and Larcker (1981). Hence, it can be concluded that these constructs were conceptually explained by the second-order construct.

Table 4.12
T-value and Significance of the Second-order

Second-order Construct	First-order Construct	Path Coefficient	Standard Error	T-statistics	P-values	R-square
Transformational leadership	IDI	0.907	0.010	87.833	0.000	0.823
	INM	0.835	0.017	47.902	0.000	0.698
	INS	0.883	0.011	82.984	0.000	0.780
	INC	0.885	0.012	71.007	0.000	0.783
Transactional leadership	COR	0.773	0.030	26.028	0.000	0.597
	MEP	0.879	0.014	64.403	0.000	0.773
	MEA	0.643	0.051	12.524	0.000	0.414
Employee's commitment towards change	AFC	0.952	0.006	168.433	0.000	0.907
	COC	0.930	0.008	123.523	0.000	0.864
	NOC	0.599	0.051	11.745	0.000	0.359
Employee's readiness to Change	APP	0.932	0.020	46.458	0.000	0.869
	CHE	0.878	0.022	39.889	0.000	0.770
	MAS	0.477	0.102	4.659	0.000	0.228
	PEB	0.110	0.083	1.327	0.185	0.012

In conclusion, the measurement model of the present study was examined by several tests such as indicator reliability, internal consistency test, convergent validity and discriminant validity. The main purpose for conducting all these tests was to ensure that the measurement model was valid and reliable before proceeding further to test the hypotheses. The results of all the tests confirmed that the research model was valid and reliable.

4.4.3 Structural Model Evaluation

After evaluating and analysing the measurement model, the next step in the PLS path modelling analysis was to test the structural model (inner model). To do so, there are several requirements, including (R^2) values, effect size (f^2) and the predictive relevance of the model recommended by Straub *et al.* (2004), Lewis *et al.* (2005), Henseler *et al.* (2009), Urbach and Ahlemann, 2010; Hair *et al.*, 2012 and Hair *et al.* (2014). In addition, the Goodness of Fit (GoF) proposed by Tenenhaus *et al.* (2005) was included in the structure model evaluation for diagnostic purpose, which is not a formal criterion, as suggested by Wetzels, Odekerken-Schroder and Oppen (2009). Finally, the bootstrapping test was run to test the significance level of the hypothesized relationships in the study model.

4.4.3.1 R-square (R^2)

The R^2 criterion was considered to be an essential requirement for evaluating the structural model in PLS-SEM (Hair *et al.*, 2011; Hair *et al.*, 2012). The R-square value reflects the amount of variances in the dependent variable in question that can be explained by one or more predictor variables (Hair *et al.*, 2010). According to Hair *et al.* (2014), there is no rule of thumb for the accepted level value of R^2 as it depends mainly on the research context and model complexity. Past researchers have suggested many criteria to be used when evaluating the R^2 values. For example, Falk and Miller (1992) suggested a cut-off point of 0.10 value for R^2 as a minimum acceptable level. Meanwhile, Cohen (1988) recommended that R-square values of 0.26, 0.13 and 0.02 for endogenous constructs can be interpreted as substantial,

moderate, and weak respectively. In addition, Chin (1998a) stated that the R^2 values of equal or more than 0.67 represents substantial, 0.33 represents moderate, and 0.19 represents weak. In general, the R^2 values of 0.75, 0.50 and 0.25 can be interpreted as substantial, moderate, and weak respectively (Hair *et al.*, 2014).

Based on the R-square value of the exogenous variable, Employee's Readiness to Change, presented in Figure 4.5, it is obvious that the research model explains 38% of the total variance in Employee's Readiness to Change. This indicates that the three sets of endogenous variables (i.e., Transformational Leadership, Transactional Leadership and Employee's Commitment towards Change) jointly explain 38% of the variance of Employee's Readiness to Change. Therefore, in this study two endogenous variables showed acceptable levels of R-square values based on the criterion of Falk and Miller (1992). Whereas, the R-square values were considered substantial, moderate and weak of the two endogenous variables based on the criteria of Cohen (1988), Chin (1998a) and Hair *et al.* (2014) respectively.

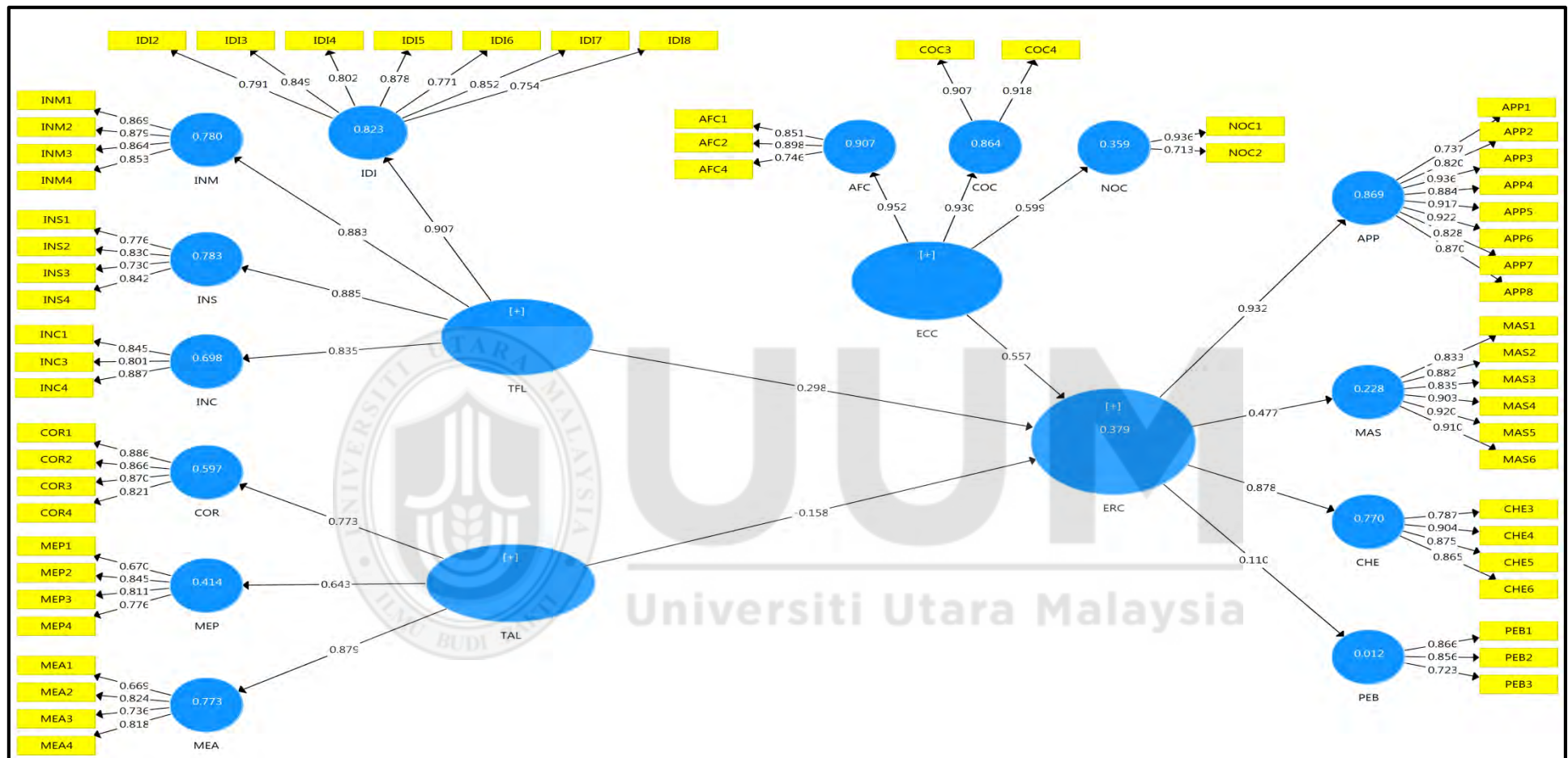


Figure 4.5 Items Loading, Path Coefficient and R^2 Value

Note: TFL=Transformational Leadership, TAL=Transactional Leadership, ECC= Employee's commitment towards change, ERC=Employee's readiness to Change.

4.4.3.2 Effect Size (f^2)

It is advantageous to dictate the effect sizes of particular variables' influence on the dependent variables by utilizing the effect size (f^2) analysis which is complementary to R^2 (Chin, 2010). The effect size (f^2) can be determined using the formula suggested by Cohen (1988) as follows:

$$\text{Effect size } (f^2) = \frac{R_{\text{included}}^2 - R_{\text{excluded}}^2}{1 - R_{\text{included}}^2} \quad (1)$$

R^2 included is the R-square obtained on the endogenous variable when the predictor exogenous latent variable is used in the structural model. While R^2 excluded is the R-square obtained on the endogenous variable when the predictor exogenous variable is not used in the structural model. According to the recommendation of Cohen (1988), the f^2 values of 0.02, 0.15 and 0.35 represent small, medium and large effects in the structural model respectively.

As illustrated in Table 4.13 below, the effect sizes for the Transformational Leadership and Transactional Leadership are 0.084 and 0.023 respectively. Therefore, the effect sizes of endogenous variables which are transformational leadership and transactional leadership on Employee's Readiness to Change can be described as small based on the guideline of Cohen (1988).

Table 4.13 *The Effect Size of Employees Readiness to Change and the Interaction Term*

Construct	R ² included	R ² excluded	R ² included - R ² excluded	1- R ² included	Effect Size	Result
TFL	0.379	0.327	0.052	0.621	0.084	Small
TAL	0.379	0.365	0.014	0.621	0.023	Small

Note: TFL=Transformational Leadership, TAL=Transactional Leadership.

4.4.3.3 Predictive Relevance of the Model (Q²)

In addition to assessing the R² as a criterion to predict the model accuracy, the predictive relevance (Q²) should also be examined by researchers (Hair *et al.*, 2014). Blindfolding procedure is designed to remove certain amounts of the data and consider them as missing values to estimate the model parameters. Consecutively, the estimated parameters are utilized to reconstruct the raw data that are supposedly missing previously. However, it is stated that the blindfolding procedure is only applied to endogenous latent variables that have a reflective measurement model specification (Henseler *et al.*, 2009; Hair *et al.*, 2011; Hair *et al.*, 2014). Therefore, in this study, a blindfolding procedure was employed to the endogenous latent variables, since all endogenous latent variables of the study are reflective in nature.

Specifically, there are two different measures of the predictive relevance (Q²), namely cross validated redundancy and cross validated communality (Hair *et al.*, 2014). However, it is recommended to utilize the cross-validated redundancy because it includes both structural models and the measurement models for data prediction, unlike cross validated communality that includes only the measurement

model, thus fitting perfectly with the PLS-SEM approach (Hair *et al.*, 2014; Hair *et al.*, 2011). According to Fornell and Cha (1994), Hair *et al.* (2014) and Hair *et al.* (2011), a research model with a cross redundancy value higher than zero is interpreted to have predictive relevance, otherwise, the model cannot be confirmed to be predictively relevant. As shown in Table 4.14, the cross-validated redundancy value of Employee's Readiness to Change is 0.148 which is more than zero. The cross redundancy value of the endogenous variable of the study was adequate predictive relevance of the study model.

Table 4.14

The Predictive Relevance of the Endogenous Construct

Exogenous Construct	R-square	Cross validated Redundancy	Cross validated Communality
Employee's readiness to Change	0.379	0.148	0.312

4.4.3.4 Path Coefficients Testing

After the measurement model and structural model were confirmed to be reliable and valid, the next step in PLS-SEM path modelling was to test the hypothesized relationships. To do so, this study utilized the PLS algorithm and the standard bootstrapping procedure with a number of 5000 bootstrap samples and 125 cases, in examining the path's coefficients significance (Hair *et al.*, 2014; Hair *et al.*, 2012; Hair *et al.*, 2011; Henseler *et al.*, 2009). Table 4.15 and Figure 4.6 show the path's coefficient values and the bootstrapping results explaining the hypothesized relationships among the study variables.

Based on the results presented in Table 4.15 page158 and Figure 4.6 page 159, it is obvious that the proposed relationship between TFL and ERC was positively significant ($\beta = 0.271$, $t = 3.908$, $p < 0.01$), hence the hypothesis H1 was supported. In comparison to the effect of transactional leadership and its dimensions on employee's readiness to change, transactional leadership ($\beta = -0.041$, $t = 0.811$, $p > 0.1$), as a composite variable, is not significantly related to employee's readiness to change, indicating that hypothesis H2 is not supported.

Table 4.15
The Results of Direct Hypotheses Testing

No.	Hypo.	Hypothesis	Path Coefficient	Standard Deviation	T- value	P- value	Decision
1	H1	TFL -> ERC	0.271	0.069	3.908***	0.000	Supported
2	H2	TAL -> ERC	-0.041	0.051	0.811	0.418	Not supported

Note: ***: $p < 0.01$; **: $p < 0.05$; *: $p < 0.1$.

Note: TFL=Transformational Leadership, TAL=Transactional Leadership, Employee's readiness to Change.

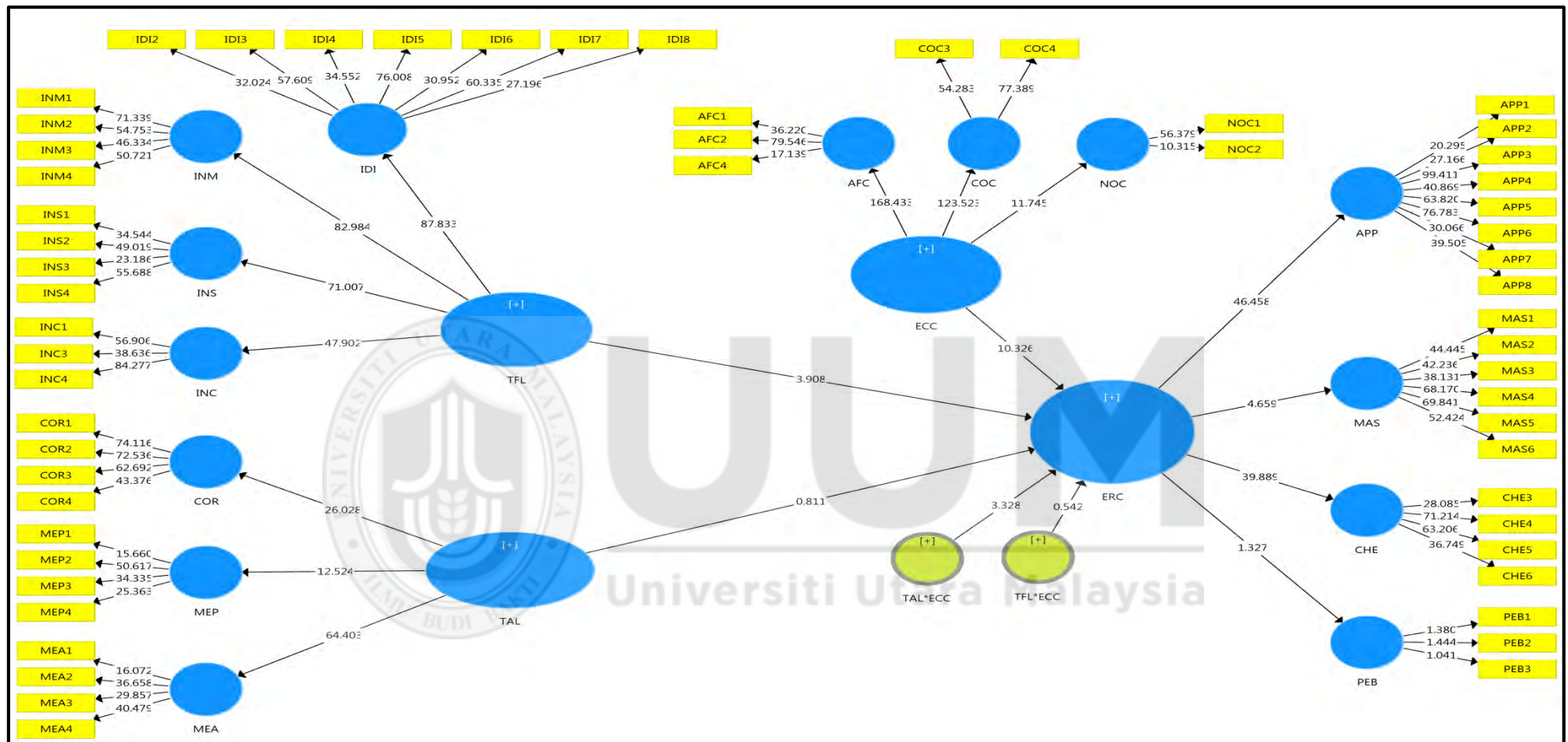


Figure 4.6

PLS Bootstrapping results of the Mode

Note: TFL=Transformational Leadership, TAL=Transactional Leadership, ECC= Employee's commitment towards change, ERC=Employee's readiness to Change.

4.4.3.5 The Moderating Relationships Testing

Moderation tests was employed to find out whether there is a moderating effect of employee's commitment towards change on the relationship between both Transformational Leadership (TFL) and Transactional Leadership (TAL) as composite variables of employee's readiness to change. The result of the moderation test is presented in the following section.

The results of bootstrapping with regards to the moderating effect of employee's commitment towards change on the relationship between Transformational Leadership (TFL) as composite variable and employee's readiness to change presented in Table 4.16. These results showed that the employee's commitment towards change ($\beta = -0.039$, $t = 0.542$, $p > 0.05$) did not moderate the relationship between TFL as a composite variable and employee's readiness to change. Thus, it can be concluded that hypothesis 3 is not supported.

Table 4.16
The Moderating Results of ECC on the link between TFL and ERC

No.	Hypo.	Hypothesis	Path	Standard	T-	P-	Decision
			Coefficient	Deviation	value	value	
1	H3	TFL*ECC -> ERC	-0.039	0.072	0.542	0.588	Not supported

Note: TFL=Transformational Leadership, ECC= Employee's commitment towards change, ERC=Employee's readiness to Change.

Furthermore, the findings of bootstrapping regarding the moderating effect of employee's commitment towards change on the relationship between Transactional Leadership (TAL) as a composite variable and employee's readiness to change

shown in Table 4.17. These results showed that the employee's commitment towards change ($\beta = 0.228$, $t = 3.328$, $p < 0.01$) moderates significantly the relationship between TAL as a composite variable and employee's readiness to change. Thus, it can be concluded that hypothesis 4 is supported.

Table 4.17

The Moderating Results of ECC on the link between TAL and ERC

No.	Hypo.	Hypothesis	Path Coefficient	Standard Deviation	T- value	P- value	Decision
1	H4	TAL*ECC -> ERC	0.228	0.068	3.328	0.001	Supported

Note: TAL=Transactional Leadership, ECC= Employee's commitment towards change, ERC=Employee's readiness to Change.

Figure 4.7 below also suggested that the relationship between TAL and ERC can be improved by introducing the moderating role of ECC.

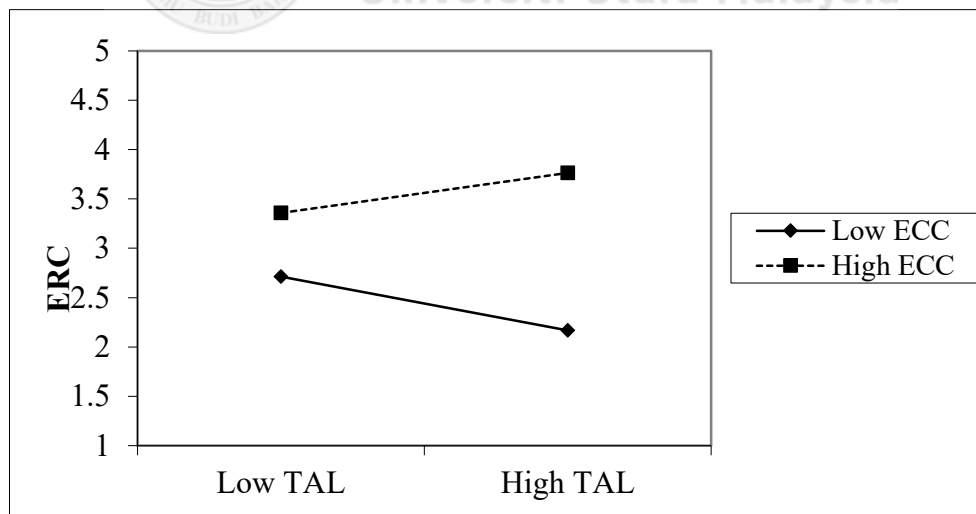


Figure 4.7 *Interaction Effect of TAL and ECC on ERC*

Note: TFL=Transformational Leadership, TAL=Transactional Leadership, ECC= Employee's commitment towards change, ERC=Employee's readiness to Change.

For more explanation figure 4.7 shows that the relationship between TAL and ERC when ECC is high (discontinuous line) and shows the same relation when ECC is low (continuous line). In other words, the graph illustrated that if employees are not committed towards change, the effect of TAL on the employee's readiness for the new situation of work applied in organization becomes low. Therefore, increasing the employees' commitment towards change (ECC) leads to higher effect of TAL style which represents rewards and penalties on the readiness of employees towards change. On the contrary, if the ECC is low, the effect of TAL becomes low on the readiness of employees towards change.

4.5 Summary of the Findings

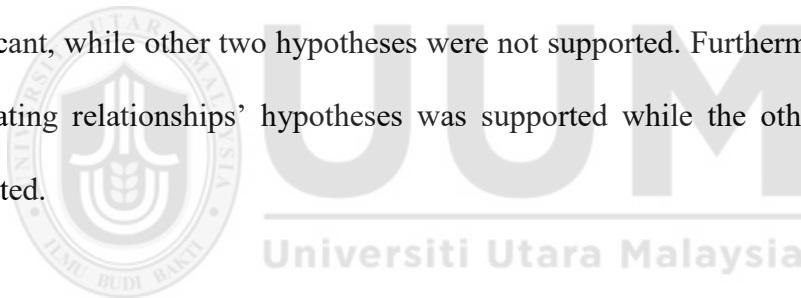
Having presented all the findings, including the direct effects and moderating effects in the previous section, Table 4.18 shows a summary of the results related to all hypotheses tested.

Table 4.18 *Summary of the Results*

Hyp. no	Variables	Result
H1	The effect of Transformational leadership style (TFL) on Employees Readiness to Change (ERC)	Supported
H2	The effect of Transactional leadership Style (TCL) on Employees Readiness to Change (ERC)	Not supported
H3	The Moderating Effect of Employee Commitment Towards Change (ECC) on the relationship between Transformational leadership style (TFL) and Employees Readiness to Change (ERC)	Not supported
2H4	The Moderating Effect of Employee Commitment Towards Change (ECC) on the relationship between Transactional leadership Style (TCL) and Employees Readiness to Change (ERC)	Supported

4.6 Summary

In this chapter, the results of the study were presented. At the beginning, the survey response, the data screening and preliminary analysis were established using SPSS. Then, the results of the measurement model, structural model, direct hypotheses testing and moderating relationships test were obtained using PLS path modelling. Finally, the summary of findings was presented, which showed that while the results of the study supported some of the hypotheses, they did not support all of the hypotheses. More specifically, two out of ten direct hypotheses were confirmed to be significant, while other two hypotheses were not supported. Furthermore, one of two moderating relationships' hypotheses was supported while the other one was not supported.



CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter begins with a brief review of the study, highlighting the research issues, the study motivation, the research design and the statistical analysis techniques utilized in the study. It also discusses the findings and elaborates the contributions made by the study. The last section presents the limitations of the study and explains how these limitations provide the opportunities for future research.

As mentioned in chapter one, the motivation of this study came from the practical issues related to employee's readiness to change, in the context of the least developing countries, particularly in Yemen. This leads to the theoretical gaps found in existing literatures connected to employee's readiness to change. The significant role of the public sector, as the main service provider for the community and the backbone of the economy, is another motivator. The outcomes of the study have provided a roadmap and pinpoint milestones for the Yemeni's government and other stakeholders, through identifying the most significant drivers of employee's readiness to change.

Based on the extensive literature review, this study has developed a theoretical model that produces testable relationships among the constructs of the study for the public sector. These constructs include the transformational leadership, transactional leadership, employee's commitment towards change and the employee's readiness to

change. The theoretical model verifies the effect of transformational leadership and transactional leadership variables on the employee's readiness to change, and confirms on the moderating effect of employee's commitment towards change.

Overall, this study, in the opinion of the researcher, had successfully provided empirical evidences concerning the key drivers of the employee's readiness to change. The examination of these relationships, within the structural model of the study, is grounded and underpinned by the Lewin's model and Social Exchange Theory, achieving the following research objectives:

1. To determine the effect of transformational leadership on employee's readiness to change.
2. To determine the effect of transactional leadership on readiness to change.
3. To examine the moderating effect of employee's commitment towards change on the relationship between transformational leadership and employee's readiness to change.
4. To examine the moderating effect employee's commitment towards change on the relationship between transactional leadership and employee's readiness to change.

The data collected from the public sector (Education Ministry, Finance Ministry, Public Work and Highway Ministry and Health Ministry) could be generalized as expected. The generalization is based on the perceptions of the public sectors' employees, the source of the information for testing the hypotheses, which are postulated based on the problem statement of the study. With 51% response rates, the researcher conducted survey response analysis, data screening and preliminary

analysis, including missing data, non-response bias, descriptive data, outliers, and the normality, linearity and multicollinearity assumptions, through utilization of the Statistical Package for Social Science (SPSS). The partial least square (PLS) was used in assessing and determining the quality of the model and the structural model.

5.2 Discussions

This section offers further discussions on the findings, with regards to the previous section. It is structured basically to discuss the questions stated previously, hence, accomplishing the objectives of the study while offering some generalization.

5.2.1 Objective One

As discussed, the first objective of the study is to examine the effect of transformational leadership style (TFL) on the employee's readiness to change. From the testing of the composite variables, it was found that the collective of all the dimensions of transformational leadership style (TFL) form a strong indicator that TFL has a significant influence on the employee's readiness to change (ERC) ($\beta = 0.271$, $t = 3.908$, $p < 0.01$). This finding was supported by many studies such as Lyons *et al.* (2009), Reid (2011) and AL-Abrow and Abrishamkar (2013) emphasized that transformational leadership style (TFL) is significantly related to readiness to change. This indicates that the public sectors in the Republic of Yemen should employ the transformational leadership practices to increase the readiness to change among the employees.

This is due to the fact that if employees are not supportive or against such a change as a sensible point requires thinking about (Herscovitch & Meyer 2002). Therefore, this style of leadership affects the essential attitudes and assumptions of an organization's employees and creates a common mentality to achieve the organizational objectives (García *et al.*, 2008). Moreover, its affects are not limited on creating valuable and positive changes among the subordinates within organizations (Chou *et al.*, 2013), it can also strategically influence both innovation and knowledge (Nonaka & Takeuchi, 1995). This concludes that transformational leadership style affect employee's readiness to change when leader encourages subordinates to search for new methods in carrying out their work, from inspirational motivations to intellectual stimulations (Ismail *et al.*, 2010).

Based on the fact of employee as an individual is sensitive and complex; therefore, employees' attitudes, beliefs, and perceptions have been seen as crucial factors for organizational success. This finding is supporting what experts have emphasized on the importance of investigating factors that are likely to determine employees' readiness to a change process (Cinite *et al.*, 2009; Cunningham *et al.*, 2002; Erturk, 2008; Madsen *et al.*, 2005; Rafferty & Simon, 2006). It is clear that there are extensive researcher works carried out on the factors that affect and develop positive attitudes toward employee's readiness for changes in an organization which is supported by the result of current study. The public sectors, in the context of Yemeni's government, need to enhance transformational leadership skills as a package of complementary practices that will increase the readiness to change of the employees in Yemeni public sectors. Therefore, these practices should be employed within the public sectors in Yemen.

The result provides a validation on the suggested hypotheses and answers the first research question of the study. It also provides support for the premise of Lewin's model and Social Exchange Theory (SET) by confirming the significant effects of transformational leadership on employee's readiness to change. To conclude, this result suggests that the public sectors, in the context of Yemeni's government, need to employ transformational leadership as a package of complementary practices to increase the readiness to change of the employees in Yemeni public sectors. This shows that the leaders of the public sectors should highlight their values and beliefs when talking with employees. They also prioritize on making the employees proud of being associated with them, instilling respects among subordinates. They should take into consideration the moral and ethical consequences of decisions and emphasizing the importance of having a collective sense of mission and displaying a sense of power and confidences. In conclusion, the idealized, inspirational motivation, intellectual stimulation and individualised consideration influence practices should be given more attention by the public sectors' leaders as a prerequisite to increase the readiness to change among the Yemeni public sectors' employees.

5.2.2 Objective Two

The second objective of the study is to examine the effect of transactional leadership on employee's readiness to change. The results show that Transactional leadership style (TAL) was tested as a single construct where the relationship between these two constructs was not supported ($\beta = -0.041$, $t = 0.811$, $p > 0.1$). This result is not

consistent with the previous studies carried out by Lyons, et al. (2009), Reid (2011) and AL-Abrow and Abrishamkar (2013). This indicates that the practices of transactional leadership in the case of Yemen have something different in some way may be because of the low rate of salaries or the system of incentives and rewards which might not been practiced well as the result of corruptions within the public sectors in Yemen. Therefore, more efforts should be made by the leaders of the public sectors in Yemen to increase the employee's readiness to change.

Moreover, in the context of Yemen the practices of transactional leadership which focuses on a give and take process concept are not enough drivers to support the readiness changes among the employees. This is may be due to paying little attention to the needs of the organization including the changes requirements rather much focus is given to the completing tasks and achieving expectations (Avolio, 1999). In other words, the tasks related to the change processes could be unclear and the focus is just given on the give and take process so that the tasks should be clear and the employees should believe in the long-term benefits of such changes. Therefore, the leaders should make the employees aware of the benefits of these changes and the rewards which will be given to them are only some of the advantages.

In a nutshell, the result of the study does not confirm the link between TAL and ERC among the Yemeni employees in public sector. However, the moderating effect of employee commitment to change (ECC) on the mentioned relationship can be beneficial which can be illustrated in the following section.

5.2.3 Objective Three

The study tested the moderating effect of employee's commitment towards change (ECC) on the relationship between transformational leadership style (TFL) and the employee's readiness to change (ERC) in the context of Yemeni public sector. This test is considered as the third objective of the current study. As shown in chapter four, the result of bootstrapping analysis shows that ECC does not moderate the relationship between TFL and ERC ($\beta = -0.039$, $t = 0.542$, $p > 0.05$). This result shows that the existence of ECC does not have any effect on the link between TFL and ERC rather TFL has a direct effect on ERC as discussed in the previous section. This indicates that TFL has a strong direct effect on ERC of employees in the context of Yemen.

This is supported by the literature which has been reported that transformational leadership style has been extensively studied compared to other styles, such as transactional leadership style, as it generates positive relationships with employees (Whittington *et al.* 2009). Moreover, this style of leadership can obtain greater success in organizations (Johnson, 2009) and encourage employees to implement changes (Herold *et al.*, 2008; Aarons *et al.*, 2015). Not only this, it affects significantly the basic attitudes of employees within organizations and motivates them to achieve the common objectives of the organization (García *et al.*, 2008). It can also support enhance the innovation and knowledge process among employees (Nonaka & Takeuchi, 1995; Sethibe, T., & Steyn, R. 2017) by encouraging them to find out new ways in conducting their tasks (Ismail *et al.*, 2010). Thus, TFL can be

described as a significant variable affecting directly ERC which could be a reason explaining the insignificant of ECC as a moderator on the mentioned relationships.

Thus, the unsupported result for the moderating effect of commitment to change emphasize that transformational leadership relationship with employees readiness to change does not convert whether there is commitment or not towards change. But on the other hand as the major effect of transformational leadership toward changes which work on more than one dimension induce to research in details in dimensional level (Herold *et al.*, 2008). It's found out that as a composite it is not supported and for more understanding of the issues related to change management process, studying dimensions level might bring new insights.

5.2.4 Objective Four

The current study also tested the moderating effect of employee's commitment towards change (ECC) on the relationship between Transactional Leadership style (TAL) and employee's readiness to change (ERC) among the employees in Yemeni's public sector. This test is regarded as the fourth objective of the study. Unlike the result of the test related to the moderating effect of ECC on the relationship TFL and ERC, the result of bootstrapping analysis founded that ECC is a significant moderator on the relationship between TAL and ERC among the employees in Yemeni's public sectors ($\beta = 0.228$, $t = 3.328$, $p < 0.01$). On other words, testing the moderating effect of ECC on the relationship between TAL and ERC shows an interesting finding where the moderating effect of ECC is discovered to be significant.

This result supports the arguments of many authors such as Svensen et al. (2007) and Shum et al. (2008) who state that organizational commitment results in a successful implementation of the change process. This is because the important role of the organizational commitment which improves the talents and enthusiasms of employees (Senge, 2014) make them adapted to the organizational changes smoothly (Marchalina & Ahmad, 2017). Moreover, it is argued that the main reason behind the organizational change failures is the low levels of commitments among the employees (Burke, 2002; Probst & Raisch, 2005). Specifically, it is also argued that that ECC is more effective and important than organizational commitment because of the fact that commitment towards a change is more matched to practical changes (Elias, 2009; Ford & Weissbein, 2003; Herscovitch & Meyer, 2002). It is also stated that ECC is a crucial factor the success of a change process in general due to its significant role in affecting employee's readiness to change (Parish et al., 2008; Cunningham, 2006; AL-Abrow & Abrishamkar, 2013). Thus, it can be concluded by this study that ECC is an important factor that can enhance the change process within organizations through working as a moderator on the link between TAL and ERC.

Therefore, the Yemeni's public sector officials should pay attention to the practices of ECC as it is considered as a prerequisite moderator to enhance the effect of TAL on ERC. In other words, when the officials tend to implement change programs within their organizations successfully, it is necessary to make their subordinates obliged towards such change initiatives. This is because of that the practices of TAL

are not beneficial alone such as contingent rewards if the employees are not committed to such changes.

In conclusion, this study provides empirical evidence on the effects of the variables of the study namely, TFL, TAL and ECC on the ERC in the public sector of Yemen. The results show that TFL has a direct effect on ERC but the moderating effect of ECC is not supported on this relationship. On the contrary, the results of the study show that the direct effect of TAL on the ERC is not confirmed, however, the moderating effect of ECC on this relationship is found to be significant. This indicates that integrating TFL, TAL and ECC contributes significantly to the ERC and it can be described as a solid model.

5.3 Contributions of the Study

In general, the findings of the study have significantly contributed both theoretically and practically. The following sub-sections present the contributions.

5.3.1 Theoretical Contribution of the Study

The theoretical contribution of this study comes from the model explaining the relationships between transformational leadership, transactional leadership with employee's readiness to change, and the moderating effect of employee's commitment towards change on the mentioned relationships. The literature review reveals that there is a bulk of studies regarding readiness to change and its determinants in the developed countries, while scarce studies in the same field are

present in the context of least developed countries, particularly in Yemen. Therefore, this study addresses the gap in the literature by examining the direct effect of leadership styles, transformational leadership (TFL) and transactional leadership (TAL), and employee's commitment towards change on the employee's readiness to change. Specifically, it confirmed the direct effect of TFL on Employees Readiness to Change in the context of Yemeni public sector.

Moreover, it examines employee's commitment towards change as a moderator on the relationship between both TFL and TAL with the employee's readiness to change. The outcomes of the study confirmed the significant direct effects of both TFL and employee's commitment towards change on employee's readiness to change. It also confirms the moderating effect of employee's commitment towards change on the relationship between TAL and employee's readiness to change. This indicates that the employee's readiness to change in the Yemeni's public sector can be enhanced by incorporating these three variables, bringing new insights to the body of knowledge in the area of change management.

Another theoretical contribution claimed by the study is related to the proven facts that employee's commitment towards change is a significant moderator to the relationship between the two dimensions of TFL and employee's readiness to change. It also proves that employee's commitment has a moderating effect on the relationship between TAL as a composite variable and employee's readiness to change.

5.3.2 Methodological Contribution of the Study

The literature revealed that the scales of transformational leadership, transactional leadership, employee's commitment towards change and employee's readiness to change as it has been validated and proved to be reliable. These variables are established, valid and reliable in the service sector of developing countries. The current study has valuable contribution as it validates the measurements of the studied variables in the context of public sector of least developed countries such as Yemen.

Moreover, this study is one of the few studies that utilized the Smart PLS-SEM to validate the measurement model and structural model, which contributes to the methodological aspects significantly. This is done in addition to the SPSS, to test for the hypotheses with a graphical representation of results.

5.3.3 Practical Contribution of the Study

According to the findings of the study, the present study has important practical implications for the public sector managers. It provides significant insights in explaining a roadmap that helps them in understanding the most influential factors on employee's readiness to change in Yemen. This certainly contributes to enhance the readiness to change among the employees in the public sectors of Yemen. This is in line with the Yemeni's government initiatives, the administrative and financial reform implementation. The current critical situation in Yemen emphasizes the

problem of the study and the outcomes of the study suggested that the leadership styles and employee's commitment towards change should be implemented to enhance the employee's readiness to change among the employees in Yemeni's public sector.

The findings of the study provide insights on how public sector policy makers are represented by the top management starting by the minister and his deputies and managers of each department of the ministry and their assistants can enhance the process of changes through employee's readiness to change. This can be obtained through the implementation of TFL and ECC. The public sector managers should pay more attention to these leadership styles, along with employee's commitment, in order to enhance employee's readiness to change. More importantly, the findings raise the awareness among the public sector managers about the important role of TFL and TAL styles, and employee's commitment towards change in employee's readiness to change enhancement. It also confirms that employee's commitment towards change is a crucial factor in employee's readiness to change enhancement.

The public managers should pay more attention to employ transformational leadership style and increase the employee's commitment towards change levels among the employees in Yemen. This will help the Yemeni's public sectors to provide effective services and improve the economy.

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5.4 Limitations and Recommendations for Future Research

Though this study has provided various contributions, including theoretical, methodological and practical contributions, like any other research works, this study is not without limitation. However, the limitations of the study can become potential opportunities for future research works.

Generally, the scope of the study was limited to four ministries in the public sector of Yemen government and it is possible to generalize these findings to other ministries in the sector. Whereas, the transformational leadership style, transactional leadership style, employee's commitment towards change and employee's readiness to change levels within the public sector are viewed and practiced differently from the other sectors. This limitation opens the opportunity for future research works in other sectors such as manufacturing sectors, in order to draw conclusions. Thus, generalization can be made for the public sector in Yemen.

Moreover, the findings of this study also might be generalized to other countries in the Middle East and North Africa (MENA) region even though the different levels of perceptions, implementations and practices in the countries. It is highly recommended to further investigate the studied model in other Arab and Asian countries to obtain more insights and generalizations.

Moreover, investigating the effect of the dimensions of both transformational leadership style and transactional leadership style on the employee's readiness to change is limited, if any, in the literatures of organizational change and leadership theory. Leadership literature reveals the effect of the dimensions of each leadership style have been examined on different constructs such as job satisfaction (Mohammad, Al-Zeaud & Batayneh, 2011), entrepreneurial orientation (Öncer, 2013) and work ethics (Singh, 2011). Consequently, future studies can make an endeavour to test the link between the dimension of leadership styles and employee's readiness to change. This test may bring new insights to the literatures of organizational change which provide deep understanding about the effect of each dimension of TFL and TAL on employee's readiness to change.

Note that the data was collected from the employees of the public sector which have certain level of employment and practices on leadership styles, employee's commitment towards change and employee's readiness to change, which might lead to different conclusions. Thus, conducting more studies would reveal a clear understanding on the implementation of leadership styles and employee's commitment towards change on employee's readiness to change.

Taking the methodology for the study into consideration, this study uses a cross-sectional research design to test the hypothesized relationships at a point of time, which could be regarded as a methodological limitation. This type of study is argued for not considering the dynamic changes in the environment and the psychological changes of the respondents that could occur later. Thus, this study recommends examining the study model, utilizing longitudinal approach by observing the same

employees and gathering the data repeatedly over a period of time to validate the obtained results.

In the context of examining the moderating effect of employee's commitment towards change on the relationship between the two leadership styles, TFL and TAL, on employee's readiness to change, future research works to expand the studied model by adding more leadership styles, such as Laissez-faire, might show more insights.

5.5 Conclusion

Development of any organization occurs by implementing change that makes organizations suffered. Because of the organization struggle to be developed, there is a pressure require to understand the factors that may directly or indirectly affect people behaviours in organizations. However, this study was concerned with two important issues in the field of organizational change, leadership and employee commitment to change as well as employee's readiness to change. The literature revealed that both subjects were considered as major contributors to the success of any change.

This study reveals that transformational leadership style, transactional leadership style and employee's commitment towards change are critical predictors of employee's readiness to change. These factors were proposed to have significant effects on the employee's readiness to change. Furthermore, examining the interaction effects of TFL, TAL and ECC on employee's readiness to change is a major contribution of the study.

Moreover, the discovery of the moderating effects of employee's commitment towards change on the relationship between the dimensions of TFL and TAL as composite variables, on the employee's readiness to change, offers a significant finding with regard to the theory. Finally, this study answered the research questions and accomplished its objectives and supported the notion of Lewin's theory and Social Exchange Theory in the environment of Yemen.

In summary, the current study had provided several contributions, particularly, to the methodologist and practitioners. It had provided empirical evidences on the effect of TFL, TAL and ECC on employee's readiness to change, explaining on how readiness to change can be enhanced.

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APPENDIXES



Appendix 1

Questionnaire- English Version



Universiti Utara Malaysia

Yemeni government readiness to change Survey 2015

Dear Respondent,

I am a Doctorate student of University Utara Malaysia, and currently conducting a survey on government employee on leadership styles and employees effects on the performance of Yemeni government employee. Attached is a set of questions related to this study. Your participation in responding to this questionnaire is highly respected. This questionnaire is a part of the requirements for the award of PhD in management (HRM). Please fill it in as accurate as possible.

Be assured that all your responses will be kept strictly confidential and will be used only for research purposes. Once again, I would like to express my gratitude for your cooperation.

Yours sincerely,

Gamal Abdulah Ali Al-Douis

PhD candidate

Email: douis72@yahoo.com

Mobile: 00967773955990

Section I: DEMOGRAPHIC FACTOR AND ORGANIZATION PROFILE

In this section, these questions are related to your profile and background Information. Please tick (✓) in the appropriate answer and be assured that your responses is strictly confidential.

1. What is your gender? ☐ Male ☐ Female
 2. Your age group
☐ 20 -29 Years ☐ 30-39 Years
☐ 40-49 Years ☐ 50 Years and above
 3. What is your educational level?
☐ High school ☐ Diploma level

☐ Undergraduate degree ☐ Master degree
☐ Doctoral degree ☐ Other qualification (please specify)
.....
 4. Your Ministry is
☐ Ministry Of Finance Ministry of Public Works & Urban Development
☐ Ministry of Public Health & Population
☐ Ministry of Education
☐ Ministry of finance
 5. How long have you been working in this ministry?
☐ 5 Years ☐ 6-10 years
☐ 11-15 Years ☐ 16 Years and above
 6. Have you been involving in any automated financial management information system (AFMIS) programs?
☐ Yes ☐ No
-

Section II: Leadership in the organization

This section describes statements about Leaders in your organization. Kindly read these statements carefully and circle the number that most appropriately reflects your opinion.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

No	Statements	Scale				
1	In this institutions, leaders talk about their most important values and beliefs.	1	2	3	4	5
2	They instill pride in me for being associated with them.	1	2	3	4	5
3	They specify the importance of having a strong sense of purpose.	1	2	3	4	5
4	They go beyond self-interest for the good of the group.	1	2	3	4	5
5	They act in ways that build my respect.	1	2	3	4	5
6	They consider the moral and ethical consequences of decisions.	1	2	3	4	5
7	They emphasize the importance of having a collective sense of mission.	1	2	3	4	5
8	They display a sense of power and confidence.	1	2	3	4	5
9	They talk optimistically about the future.	1	2	3	4	5
10	They talk enthusiastically about what needs to be accomplished.	1	2	3	4	5
11	They articulate a compelling vision of the future.	1	2	3	4	5
12	They express confidence that goals will be achieved.	1	2	3	4	5
13	They re-examine critical assumptions to question whether they are appropriate.	1	2	3	4	5
14	They seek differing perspectives when solving problems.	1	2	3	4	5
15	They spend time teaching and coaching.	1	2	3	4	5
16	They get me to look at problems from many different angles.	1	2	3	4	5
17	Suggesting new ways of looking at how to complete assignments.	1	2	3	4	5
18	Treat me as an individual rather than just as a member of a group.	1	2	3	4	5
19	They consider me as having different needs, abilities, and aspirations from others.	1	2	3	4	5
20	They help me to develop my strengths.	1	2	3	4	5

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

	Statements	Scale				
1	They provide me with assistance in exchange for my efforts.	1	2	3	4	5
2	They discuss in specific terms who is responsible for achieving performance targets.	1	2	3	4	5
3	They make clear what one can expect to receive when performance goals are achieved.	1	2	3	4	5
4	They express satisfaction when I meet expectations.	1	2	3	4	5
5	They fail to interfere until problems become serious.	1	2	3	4	5
6	They wait for things to go wrong before taking action.	1	2	3	4	5
7	They show that they are firm believers in, "If it ain't broke, don't fix it".	1	2	3	4	5
8	They demonstrate that problems must become chronic before taking action.	1	2	3	4	5
9	They focus attention on irregularities, mistakes, exceptions and deviations from standards.	1	2	3	4	5
10	They concentrate their full attention on dealing with mistakes, complaints and failures.	1	2	3	4	5
11	They direct my attention towards failures to meet standards.	1	2	3	4	5
12	They keep track of all mistakes.	1	2	3	4	5

Section III: Change in Organization

This section describes statements about your behavior. Kindly read these statements carefully and circle the number that most appropriately reflects your opinion.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

No	Statements	Scale				
1	I believe this change is valuable.	1	2	3	4	5
2	I believe this change is a good strategy for the organization.	1	2	3	4	5
3	I think that management is making a mistake by adopting this change.	1	2	3	4	5
4	This change serves an important purpose.	1	2	3	4	5
5	Things would be better without this change.	1	2	3	4	5
6	This change is unnecessary.	1	2	3	4	5
7	I have no choice but to go along with this change.	1	2	3	4	5
8	I feel pressure to go along with this change.	1	2	3	4	5
9	I have too much at stake to resist this change.	1	2	3	4	5
10	It would be too costly for me to resist this change.	1	2	3	4	5
11	Resisting this change is not a viable option for me.	1	2	3	4	5
12	It would be risky to speak out against this change.	1	2	3	4	5
13	I feel a sense of duty to work towards this change.	1	2	3	4	5
14	I do not think it would be right for me to oppose this change.	1	2	3	4	5
15	I would not feel badly about opposing this change.	1	2	3	4	5
16	It would be irresponsible for me to resist this change.	1	2	3	4	5
17	I would feel guilty about opposing this change.	1	2	3	4	5
18	I do not feel any obligation to support this change	1	2	3	4	5

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

No	Statements	Scale				
1	I believe that my organization will benefit from this change.	1	2	3	4	5
2	It makes much sense for us to initiate this change.	1	2	3	4	5
3	There are real reasons for us to implement this change.	1	2	3	4	5
4	This change will improve the overall efficiency of our organization.	1	2	3	4	5
5	There many logical reasons for this change to be made.	1	2	3	4	5
6	In the long term, I think it will be worthy for me if the organization makes this change.	1	2	3	4	5
7	This change makes my job easier.	1	2	3	4	5
8	When this change is implemented, I believe there is something for me to gain.	1	2	3	4	5
9	The time we are spending on this change should be spent on something else.	1	2	3	4	5
10	This change matches the priorities of our organization.	1	2	3	4	5
11	Our organization's leaders have encouraged all of us to extend our arms for this change.	1	2	3	4	5
12	Our organization's leaders have put all their support behind this change effort.	1	2	3	4	5
13	All our senior managers have declared the importance of this change.	1	2	3	4	5

14	Most of our organization's leaders are committed to this change.	1	2	3	4	5
15	Our organization's leaders want this change to be implemented.	1	2	3	4	5
16	Our management has sent a clear signal this organization is going to change.	1	2	3	4	5
17	I do not expect any problems adjusting to the work I will have when this change is implemented.	1	2	3	4	5
18	There are some tasks that will be required when we change that I don't think I can do well.	1	2	3	4	5
19	When we implement this change, I think I can handle it with ease.	1	2	3	4	5
20	I have the skills that are necessary to make this change work.	1	2	3	4	5
21	When I set my mind to it, I can learn everything that will be required when this change is implemented.	1	2	3	4	5
22	My past experiences make me confident that I will be able to perform successfully after this change is adopted.	1	2	3	4	5
23	I am worried I will lose some of my status in the organization when this change is made.	1	2	3	4	5
24	This change will badly affect many of the personal relationships I have developed.	1	2	3	4	5
25	My future in this job will be limited because of this change.	1	2	3	4	5

THANKS A LOT FOR YOUR PATIENCE IN FILLING UP THIS QUESTIONNAIRE

Appendix 2

Questionnaire- Arabic Version



Universiti Utara Malaysia

جامع للشم الال لمليزيه

استبي ان عن مديستعداد موظفي لحكوم طاهني لبرامج تايير 2015
Yemeni Government Readiness to Change Survey
2015

عيزي لموظف :

ان عمية عيزي لمتمثل في تحيق برنامج ح لملي وا ي في مؤسسات لدولة في ان عكسات
ايجية عي في اقتصاد لطن ي وكسحت في جامع الش مال لاهني د ق دم مج موعه من ا ل دل عفة
راي لموظفين لحكوميين عن اتي ران ماط لقي اده ل التزام لموظفين ورات عداد دده لتي في ذ ل ل تاغ يير. قد
تختي ارك عيه عي هذه ا اي ه واعطراي ك الشخصي معال عجب ان لم علوم اتولتسي تم
ا م ل ل ك س ي ت ل س ت خ د ا م ا راض ل ب ح ث ل ا ع م ي ف ق ط.

عيزي لموظف :

ان قوتك لذي ت مضي في ا عيه عن ا ان و ح ص ك عي لدا لراي ل في تن ع ب ه و م ل ع ي ر
وي س ا ع د عي ل و ص و ل ل ن ل ل ج ق ي م ت خ د ل ب ح ث ل ا ع م ي و ل في ب د و ه ي س ا ع د عي ل و ص و ل ر
ل و س س ا ت. و هذا ا ان ه و ج ز ع م ن م ت ل ط ل ب ت في ل ش ه ا دة ل ل ك ت و ر ا ف ي ا د ا رة ل م و د ا ل ب ش ي ه

HRM

ج ل ل ع ب عي ل ع ي س ط ل ب د ك ت و ر ا ه

ل ل و ي د ا ل ك ر و ن ي : douis72@yahoo.com

تفون: 5557777

لقسم ل : معلومات عن لحي ب ول ميس

لرج مة (✓) على اجابة ل ميس

1- لاجنس ☐ ذكر ☐ نكى

فصت ك لاع مية

02-02 سنه ☐ 32-32 سنه ☐

42-42 سنه ☐ 02 سنه اولكشر ☐

5- اع ل علميه

شله ☐ دبلوم ☐

بالظ وروس ☐ لمج ستيير ☐

لقتوراه ☐ م و مل اخر (حدد)

4- لوزال قاي ت عمل ب ه في لقت ل حللي

وزارة المية ☐ وزارة ا غال ☐

وزارة التسيوية ☐ وزارة الصحة ☐

7- ك فلية التيقضيت ه في ل عمل ض من هذ لوزارة

0-1 سنوات ☐ 12-6 سنوات ☐

10-11 سنه ☐ 16 سنه اولكشر ☐

6 هل سبق وشاركت او ع لمت ضمن او فذا اج برامج ح ل ل ف في اطار ع ل ك؟

نعم ☐ نعم ☐



UUM
Universiti Utara Malaysia

لقس ملاتنی

هذه لم يوضح عبارات عن نطق في اداة لف في تلمسة ا رة للخي في هوس تكم. لرجاء قراءة هذه
لغات بعلي عفاة ووضعا دائرة حول لوقم لئذ في عكس وجهه نظركم.

7	4	5	2	1
أوفلق مطلق	أوفلق	أوفلق و فوض	أوفلق	أوفلق مطلق
ل هب ارات				
1	7	4	5	2
2	7	4	5	2
3	7	4	5	2
4	7	4	5	2
5	7	4	5	2
6	7	4	5	2
7	7	4	5	2
8	7	4	5	2
9	7	4	5	2
10	7	4	5	2
11	7	4	5	2
12	7	4	5	2
13	7	4	5	2
14	7	4	5	2
15	7	4	5	2
16	7	4	5	2
17	7	4	5	2
18	7	4	5	2
19	7	4	5	2
20	7	4	5	2

لقی سہ ماہی شل باغی

هذه هي بعض عبارات عن رأي لموظف لشخص في برامج ج لم لي و ا ي في لموسة .
لرجاء رعاة هذه الامارات بعبارة حقيقة ووضع دائرة حول لقم لي في عكس وجهة نظركم.

[illegible]

7	4	5	2	1
أفلق تامام	أفلق	أفلق و فض	أفلق	أفلق مطلقا

لقيم اس					ل عبارات	
7	4	5	2	1	1	تأخذ بانالوزاره اوال في نظم هالتي اعمل بها متسقيد من هذا التغيير
7	4	5	2	1	2	ان هذا التغيير عن يالتي ريل سيقال انك موطين.
7	4	5	2	1	3	من الكراباب حقيقي متدعي اجراء التغيير
7	4	5	2	1	4	هذا التغيير سيطولك فاءةالوزاره اوال في نظم بشكل عام
7	4	5	2	1	5	فالك التغيير من لسبابال في طبي ذالتغيير
7	4	5	2	1	6	في المدى البعيد تأخذ بناي شخيل ساسقيد من تطيق الوزاره اوال في نظم ل هذا التغيير
7	4	5	2	1	7	هذا التغيير ج في عملي اس هل
7	4	5	2	1	8	عن ديمات متقي ذ هذا التغيير , اصق ان فالشيء سافتيده
7	4	5	2	1	9	الوقتالذين مضى في هذا التغيير لمكن ان سقيد في في شاياء اخرى
7	4	5	2	1	10	هذا التغيير يطي اولي لوزاره ال في نظم ه)
7	4	5	2	1	11	قي ادةالوزاره ال في نظم بنش جنا جي ل عمل طي وسعنا ح هذا التغيير
7	4	5	2	1	12	قي ادةالوزاره ال في نظم (تعطي ل دعم الكال ل ج مودالتغيير
7	4	5	2	1	13	جي عال مدرء ل لياش يني وكدوا في اهي ذة هذا التغيير
7	4	5	2	1	14	عظم قي ادي يالوزاره ال في نظم ه) ملتن مون بتقي ذالتغيير
7	4	5	2	1	15	ي عقي ادي يالوزاره ال في نظم ه(ي دون تقي ذ هذا التغيير
7	4	5	2	1	16	قي ادةالوزاره ال في نظم ه(بغت شارات وضح وتكد ل ه مضري من حوال التغيير
7	4	5	2	1	17	توقع مواجة اي مشلك عن دلم ابدء ال عمل بع متقي ذالتغيير

7	4	5	2	1	18	فالكعض ا راءات ستكون مطلوبه عدد اجراءات غير لذا ن ان يسأل وبعلمه ي مجدا
7	4	5	2	1	19	بعد اجراءات غير اعتقاني سأل وبعلمه ييسوله
7	4	5	2	1	20	لديال م هارات للضروي ه ا م ه حات غير
7	4	5	2	1	21	عن دملل ع في ذهني هذاالتغيري لكن أنك لم كل ما هو مطلوب من يبع دتقي ذات غير
7	4	5	2	1	22	خبرات يال سيق متعلمني لقي يقمان ي سلكم من ا م اج بش كل لقي يبع ذات غير
7	4	5	2	1	23	ي سورن ليق لقم فقد ان لكت يفي الوهم س مبع دتقي ذات غير
7	4	5	2	1	24	هذاالتغير سري و بشلل سيء لقي نللش حري القتي ببفت ه ا.
7	4	5	2	1	25	مستقل يفي ال عمل سكون م ح دوت سبب هذاالتغير.

ش كل صبرك وفتك وج ه دتقوبى ة ا ان



UUM
Universiti Utara Malaysia

Appendix 3

Questionnaire- Back Translation



Universiti Utara Malaysia

Yemeni government readiness to change Survey 2015

Dear Respondent,

I am a Doctorate student of University Utara Malaysia, and currently conducting a survey on government employee on leadership styles and employees effects on the performance of Yemeni government employee. Attached is a set of questions related to this study. Your participation in responding to this questionnaire is highly respected. This questionnaire is a part of the requirements for the award of PhD in management (HRM). Please fill it in as accurate as possible.

Be assured that all your responses will be kept strictly confidential and will be used only for research purposes. Once again, I would like to express my gratitude for your cooperation.

Yours sincerely,

Gamal Abdullah Ali Al-Douis

PhD candidate

Email: douis72@yahoo.com

Mobile: 00967773955990

Section I: INFORMATION ABOUT THE RESPONDENT AND THE INSTITUTION

In this section, these questions are related to your profile and background Information. Please tick (✓) in the appropriate answer and be assured that your responses is strictly confidential.

7. What is your gender? ☐ Male ☐ Female

8. Your age group

☐ 20 -29 Years ☐ 30-39 Years

☐ 40-49 Years ☐ 50 Years and above

9. What is your educational level?

☐ High school ☐ Diploma level

☐ Undergraduate degree ☐ Master degree

☐ Doctoral degree ☐ Other qualification (please specify)

.....

10. Your Ministry is

☐ Ministry Of Finance Ministry of Public Works & Urban Development

☐ Ministry of Public Health & Population

☐ Ministry of Education

☐ Ministry of finance

11. How long have you been working in this ministry?

☐ 5 Years ☐ 6-10 years

☐ 11-15 Years ☐ 16 Years and above

12. Have you been involving in any automated financial management information system (AFMIS) programs?

☐ Yes ☐ No

Section II: ON THE LEADERSHIP OF THE INSTITUTION

This section explains the style of leadership practiced by senior management in your organization. Please read these statements very carefully and place a circle around the number that reflects your view.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

No	Statements	Scale				
1	The leadership of this institution speaks of the most important values and the principles they believe in.	1	2	3	4	5
2	Leaders instill pride in working with them.	1	2	3	4	5
3	Leadership shows the importance of a strong sense of purpose in this institution.	1	2	3	4	5
4	The leadership works to serve the public interests and not their personal interests.	1	2	3	4	5
5	Leadership works in respectful ways.	1	2	3	4	5
6	The leadership takes into account the ethical and legal consequences of the decisions.	1	2	3	4	5
7	Leadership emphasizes the importance of the overall meaning of the organization's mission.	1	2	3	4	5
8	Leadership shows a sense of power and trust.	1	2	3	4	5
9	Leadership speaks with optimism about the future.	1	2	3	4	5
10	The leadership speaks enthusiastically about what to achieve.	1	2	3	4	5
11	Leadership expresses a vision of the future.	1	2	3	4	5
12	The leadership confidently expresses the objectives that will be achieved.	1	2	3	4	5
13	The leadership rethinks critical assumptions to make sure they are relevant.	1	2	3	4	5

14	The leadership is looking for different points of view when solving problems.	1	2	3	4	5
15	Leadership spends time in education and training	1	2	3	4	5
16	Leadership makes me see leadership problems of different angles	1	2	3	4	5
17	The leadership proposes new ways to work on tasks.	1	2	3	4	5
18	Leadership treats me as an individual rather than being a member of a group.	1	2	3	4	5
19	The leadership sees that I have different needs, abilities and aspirations than others.	1	2	3	4	5
20	Leadership helps me develop my abilities.	1	2	3	4	5

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

	Statements	Scale				
1	Advanced leadership helps me against my efforts.	1	2	3	4	5
2	Command discusses specific items to determine who is responsible for specific goals.	1	2	3	4	5
3	Leadership makes expectations clear for what can be achieved when achieving goals.	1	2	3	4	5
4	The satisfaction of leadership appears when I achieve the expected objectives.	1	2	3	4	5
5	The leadership fails to intervene until the problems get worse.	1	2	3	4	5
6	Leadership is waiting for mistakes to happen before taking any action.	1	2	3	4	5
7	The leadership has faith in the principle of "if it is not broken do not fix it".	1	2	3	4	5

8	Leadership proves that problems must be frequent before taking action.	1	2	3	4	5
9	Leadership focuses on irregularities, errors, exceptions and deviations from standards.	1	2	3	4	5
10	The focus of the leadership is to deal with mistakes, complaints and failures.	1	2	3	4	5
11	The leadership draws my attention to failures to meet standards.	1	2	3	4	5
12	The leadership tracks all mistakes.	1	2	3	4	5



Section III: CHANGE IN INSTITUTION

This section describes statements about the employee's personal opinion in the financial and administrative programs in the institution. Please read these statements very carefully and place a circle around the number that reflects your view.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

No	Statements	Scale				
1	I think this change is useful and valuable.	1	2	3	4	5
2	I think this change is an important strategy for the organization.	1	2	3	4	5
3	I think that the leadership of the organization is making a mistake by implementing the change.	1	2	3	4	5
4	This change serves important purposes.	1	2	3	4	5
5	Things will be better if there is no change.	1	2	3	4	5
6	This change is unnecessary.	1	2	3	4	5
7	I have no choice but to proceed with change.	1	2	3	4	5
8	I feel very pressure when I am working towards change.	1	2	3	4	5
9	I have a lot at stake to resist this change.	1	2	3	4	5

10	Resisting this change is very expensive for me.	1	2	3	4	5
11	Resisting this change is not a good choice for me.	1	2	3	4	5
12	To speak out against this change makes me in danger.	1	2	3	4	5
13	I have a sense of duty to work to make this change.	1	2	3	4	5
14	I do not think it would be useful for me to oppose this change.	1	2	3	4	5
15	I will not feel bad about resisting change.	1	2	3	4	5
16	It is irresponsible for to resist this change.	1	2	3	4	5
17	I would feel guilty if I resisted the change.	1	2	3	4	5
18	I do not feel any obligation to support this change.	1	2	3	4	5

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

No	Statements	Scale				
1	I think that the ministry or organization I work with will benefit from this change.	1	2	3	4	5
2	This change means a lot to us as employees.	1	2	3	4	5
3	There are real reasons for change.	1	2	3	4	5
4	This change will improve the efficiency of the ministry or organization in general.	1	2	3	4	5
5	There are plenty of logical reasons to make this change.	1	2	3	4	5
6	In the long run, I think I will personally benefit from	1	2	3	4	5

	applying this change in the ministry or organization.					
7	This change makes my work easier.	1	2	3	4	5
8	When this change is implemented, I think there is something that will benefit.	1	2	3	4	5
9	The time we spend in this change can benefit better it in other things.	1	2	3	4	5
10	This change represents the priority of the ministry (organization).	1	2	3	4	5
11	The leadership of the organization encourages us all to do what we can to make this change successful.	1	2	3	4	5
12	The leadership of the ministry (organization) gives full support to the efforts of change.	1	2	3	4	5
13	All direct directors stress the importance of this change.	1	2	3	4	5
14	Most organization leaders are committed to implementing change.	1	2	3	4	5
15	All the leaders of the ministry (organization) want to implement this change.	1	2	3	4	5
16	The leadership of the ministry (organization) sent clear signals confirming that it is going towards change.	1	2	3	4	5
17	I do not expect to face any problems when I start work after implementing the change.	1	2	3	4	5
18	There are some procedures that will be required when making the change so I do not think I will do my job well.	1	2	3	4	5
19	After making the change I think I will do my job easily.	1	2	3	4	5
20	I have the necessary skills to make a successful change.	1	2	3	4	5
21	When I put in my mind this change, I can learn everything that is required of me after implementing the change.	1	2	3	4	5

22	My previous experiences make me confident that I will be able to fully integrate after change.	1	2	3	4	5
23	I am worried that I will lose my position in the institution after the change was implemented.	1	2	3	4	5
24	This change will cause a negative impact on the personal relationships that you have built.	1	2	3	4	5
25	My future at work will be limited by this change.	1	2	3	4	5

THANKS A LOT FOR YOUR PATIENCE IN FILLING UP THIS QUESTIONNAIRE



Appendix 4

Non-Response Bias Test

Group Statistics

	BIAS	N	Mean	Std. Deviation	Std. Error Mean
IDI	Early	324	2.7801	.93854	.05214
	Late	63	2.7639	.96279	.12130
INM	Early	324	2.9498	1.02767	.05709
	Late	63	2.9563	.93276	.11752
INS	Early	324	2.7662	.94995	.05278
	Late	63	2.7619	.95928	.12086
INC	Early	324	2.6605	.93007	.05167
	Late	63	2.6944	.82115	.10345
COR	Early	324	2.7677	.98493	.05472
	Late	63	2.7381	.84054	.10590
MEP	Early	324	3.0702	.94462	.05248
	Late	63	3.2817	.88615	.11164
MEA	Early	324	2.7554	.83054	.04614
	Late	63	2.6984	.73254	.09229
EFC	Early	324	4.1163	.60373	.03354
	Late	63	4.0185	.74362	.09369
COC	Early	324	2.7798	.70641	.03925
	Late	63	2.7037	.69782	.08792
NOC	Early	324	3.6641	.66621	.03701
	Late	63	3.6958	.71061	.08953
APP	Early	324	4.0182	.67251	.03736
	Late	63	4.0698	.57632	.07261
MAS	Early	324	2.7366	.98958	.05498
	Late	63	2.6164	.85908	.10823
CHE	Early	324	3.5993	.64503	.03584
	Late	63	3.6032	.60718	.07650
PEB	Early	324	2.1019	.89002	.04945
	Late	63	2.0847	.90591	.11413

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
IDI	Equal variances assumed	.141	.708	.125	385	.901	.01620	.12977	-.23895	.27136
	Equal variances not assumed			.123	86.462	.903	.01620	.13203	-.24625	.27866
INM	Equal variances assumed	.925	.337	-.047	385	.963	-.00650	.13948	-.28074	.26774
	Equal variances not assumed			-.050	93.719	.960	-.00650	.13065	-.26592	.25292
INS	Equal variances assumed	.040	.842	.033	385	.974	.00430	.13101	-.25328	.26188
	Equal variances not assumed			.033	87.289	.974	.00430	.13188	-.25781	.26641
INC	Equal variances assumed	3.054	.081	-.270	385	.787	-.03395	.12577	-.28123	.21333
	Equal variances not assumed			-.294	95.647	.770	-.03395	.11564	-.26351	.19560

COR	Equal variances assumed	3.815	.052	.224	385	.823	.02965	.13262	-.23109	.29040
	Equal variances not assumed			.249	98.182	.804	.02965	.11920	-.20689	.26619
MEP	Equal variances assumed	.900	.343	- 1.642	385	.101	-.21153	.12881	-.46478	.04172
	Equal variances not assumed			- 1.715	91.566	.090	-.21153	.12336	-.45656	.03350
MEA	Equal variances assumed	1.537	.216	.507	385	.612	.05699	.11230	-.16380	.27778
	Equal variances not assumed			.552	95.720	.582	.05699	.10318	-.14783	.26181
EFC	Equal variances assumed	1.397	.238	1.130	385	.259	.09774	.08652	-.07238	.26785
	Equal variances not assumed			.982	78.664	.329	.09774	.09951	-.10035	.29582
COC	Equal variances assumed	.164	.685	.784	385	.433	.07613	.09708	-.11474	.26700
	Equal variances not assumed			.791	88.496	.431	.07613	.09628	-.11519	.26745
NOC	Equal variances assumed	.160	.689	-.342	385	.733	-.03167	.09274	-.21402	.15068

	Equal variances not assumed			-.327	84.529	.745	-.03167	.09688	-.22431	.16096
APP	Equal variances assumed	.049	.824	-.570	385	.569	-.05163	.09060	-.22976	.12650
	Equal variances not assumed			-.632	97.861	.529	-.05163	.08166	-.21368	.11042
MAS	Equal variances assumed	3.084	.080	.900	385	.368	.12022	.13353	-.14231	.38276
	Equal variances not assumed			.990	96.882	.324	.12022	.12140	-.12072	.36117
CHE	Equal variances assumed	.005	.946	-.044	385	.965	-.00389	.08800	-.17691	.16912
	Equal variances not assumed			-.046	91.353	.963	-.00389	.08447	-.17168	.16389
PEB	Equal variances assumed	.015	.904	.140	385	.889	.01720	.12291	-.22445	.25884
	Equal variances not assumed			.138	86.869	.890	.01720	.12438	-.23004	.26443

Appendix 5 Outliers Result

N	MAH_1	N	MAH_1	N	MAH_1	N	MAH_1
1	95.8024	35	59.88477	69	54.82315	103	64.89648
2	64.43066	36	86.25631	70	27.09575	104	37.48996
3	77.7322	37	84.72776	71	49.20033	105	88.33972
4	96.0454	38	79.20703	72	66.00599	106	42.10188
5	78.62201	39	64.11053	73	64.79877	107	58.15477
6	73.47297	40	72.12596	74	45.0135	108	66.31238
7	86.31465	41	99.43694	75	90.5228	109	51.02343
8	92.01608	42	72.53516	76	70.20341	110	43.83631
9	61.9966	43	90.28926	77	32.26521	111	28.69732
10	72.15146	44	98.19683	78	48.30461	112	58.25235
11	72.42357	45	62.94722	79	83.10352	113	76.90902
12	78.32823	46	46.59217	80	31.37853	114	55.15964
13	83.30669	47	26.59936	81	48.70549	115	70.11999
14	79.79153	48	24.52304	82	54.25943	116	31.16921
15	70.11132	49	73.28061	83	96.15539	117	31.30771
16	72.62449	50	34.62935	84	98.74871	118	101.0571
17	66.37209	51	46.15207	85	63.03892	119	82.6427
18	46.76878	52	45.79187	86	37.46697	120	99.65069
19	93.51912	53	89.3791	87	74.99853	121	65.47064
20	72.4681	54	95.73744	88	60.10545	122	70.53697
21	61.00762	55	67.82742	89	87.41479	123	92.95057
22	91.74182	56	27.19182	90	50.02342	124	65.25358
23	72.90744	57	53.81434	91	53.36039	125	32.85541
24	29.82363	58	70.73614	92	76.45782	126	69.06846
25	54.28561	59	25.26754	93	68.93373	127	90.93319
26	70.10927	60	53.05953	94	78.85617	128	70.11192
27	84.34867	61	63.24244	95	33.79755	129	107.0155
28	86.68256	62	59.75409	96	93.84821	130	58.74714
29	91.57701	63	40.30436	97	59.66081	131	113.7401
30	53.38971	64	62.63539	98	88.101	132	59.47689
31	38.90888	65	61.76328	99	37.09665	133	78.31926
32	81.83078	66	90.38332	100	54.04952	134	87.61169

33	35.74876	67	65.34004	101	56.51016	135	84.32222
34	91.85799	68	63.71375	102	85.16092	136	92.40702



Appendix 6

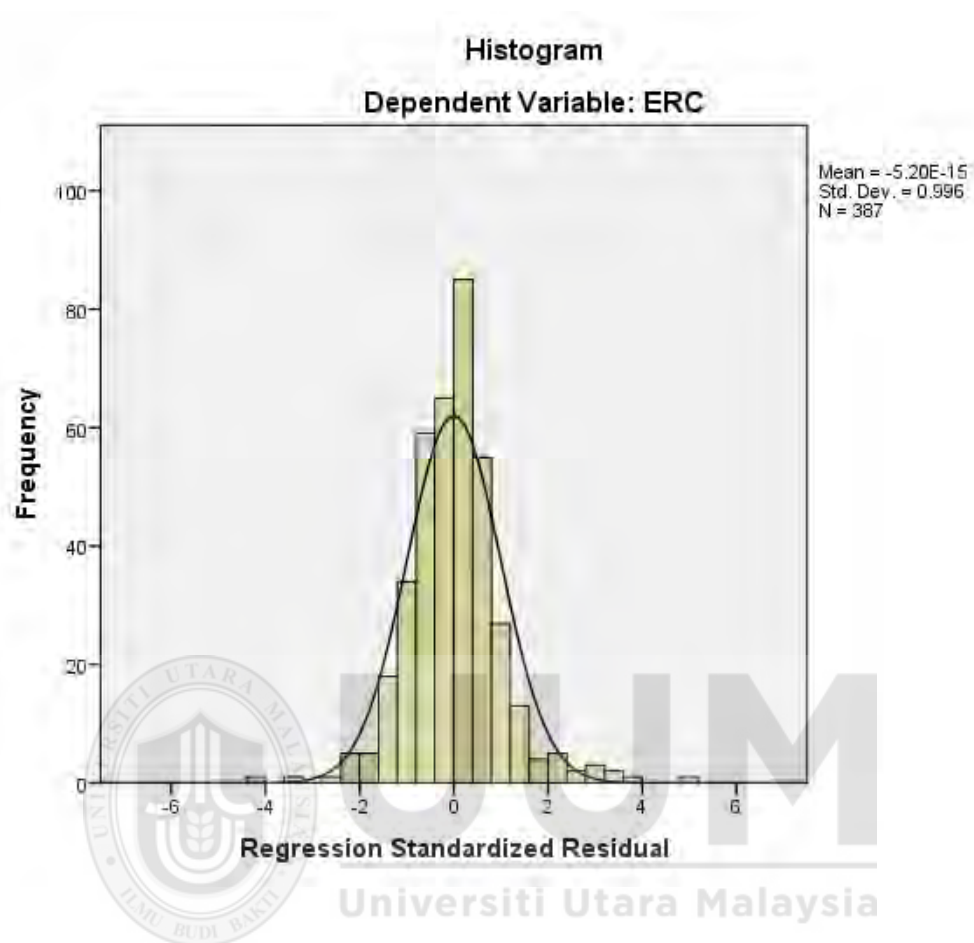
Skewness and Kurtosis Results for Normality Test

Descriptive Statistics

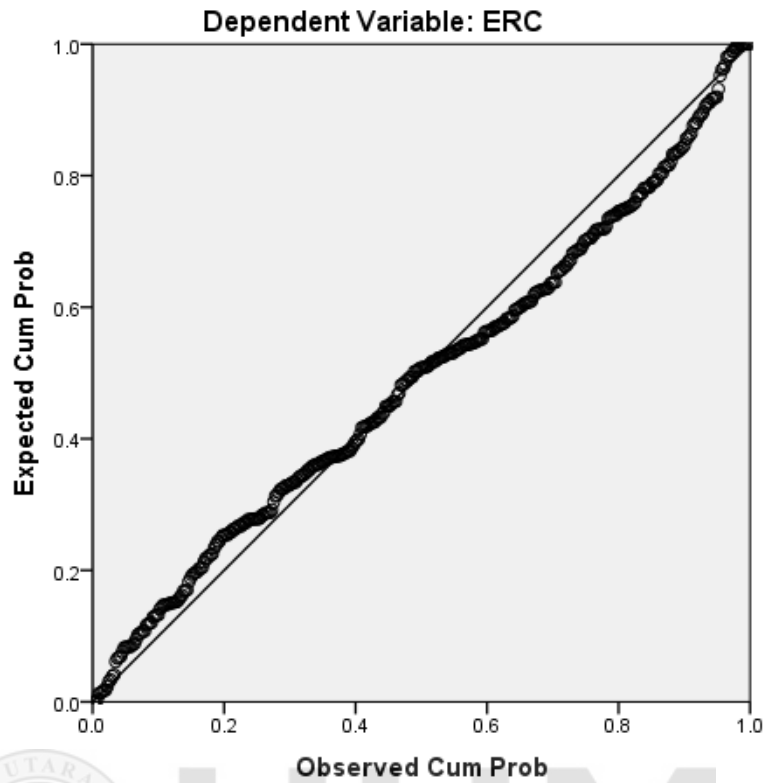
	N	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
IDI	387	2.7775	.019	.124	-.836	.247
INM	387	2.9509	-.229	.124	-.711	.247
INS	387	2.7655	.054	.124	-.456	.247
INC	387	2.6660	.083	.124	-.523	.247
COR	387	2.7629	-.026	.124	-.740	.247
MEP	387	3.1047	-.357	.124	-.543	.247
MEA	387	2.7461	-.024	.124	-.104	.247
EFC	387	4.1003	-.875	.124	1.319	.247
COC	387	2.7674	-.183	.124	.156	.247
NOC	387	3.6693	-.238	.124	.272	.247
APP	387	4.0788	-1.428	.124	5.857	.247
MAS	387	2.7171	.107	.124	-.565	.247
CHE	387	3.6245	-1.174	.124	3.658	.247
PEB	387	2.0991	.705	.124	.232	.247
Valid N (listwise)	387					

Appendix 7

Linearity Test

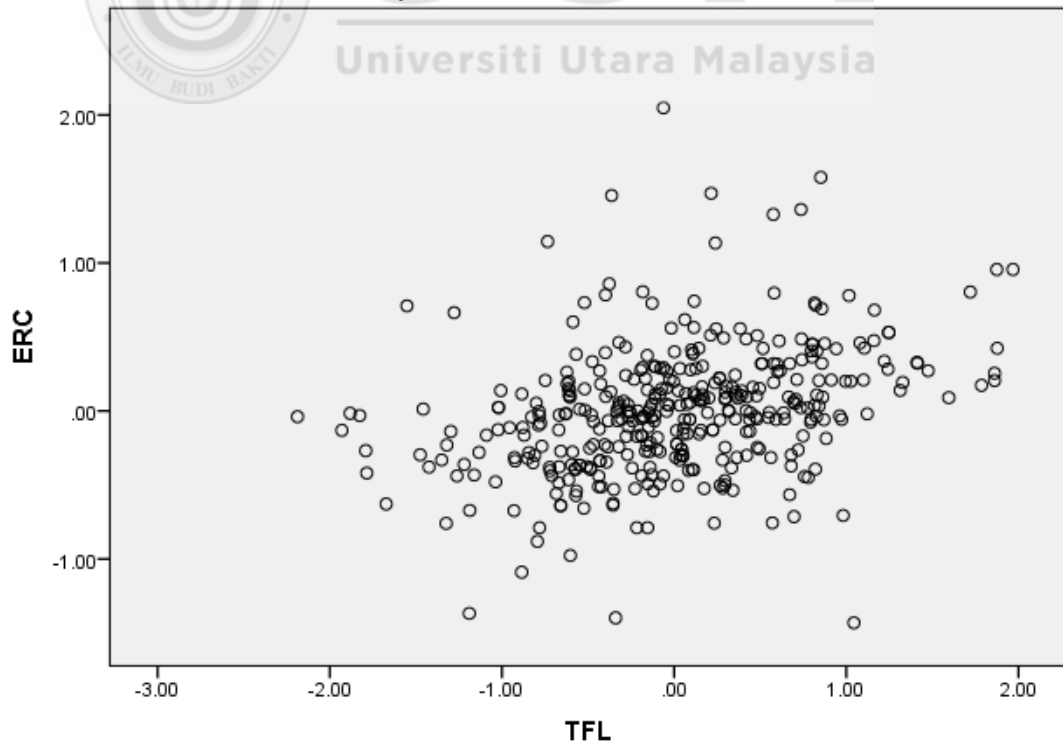


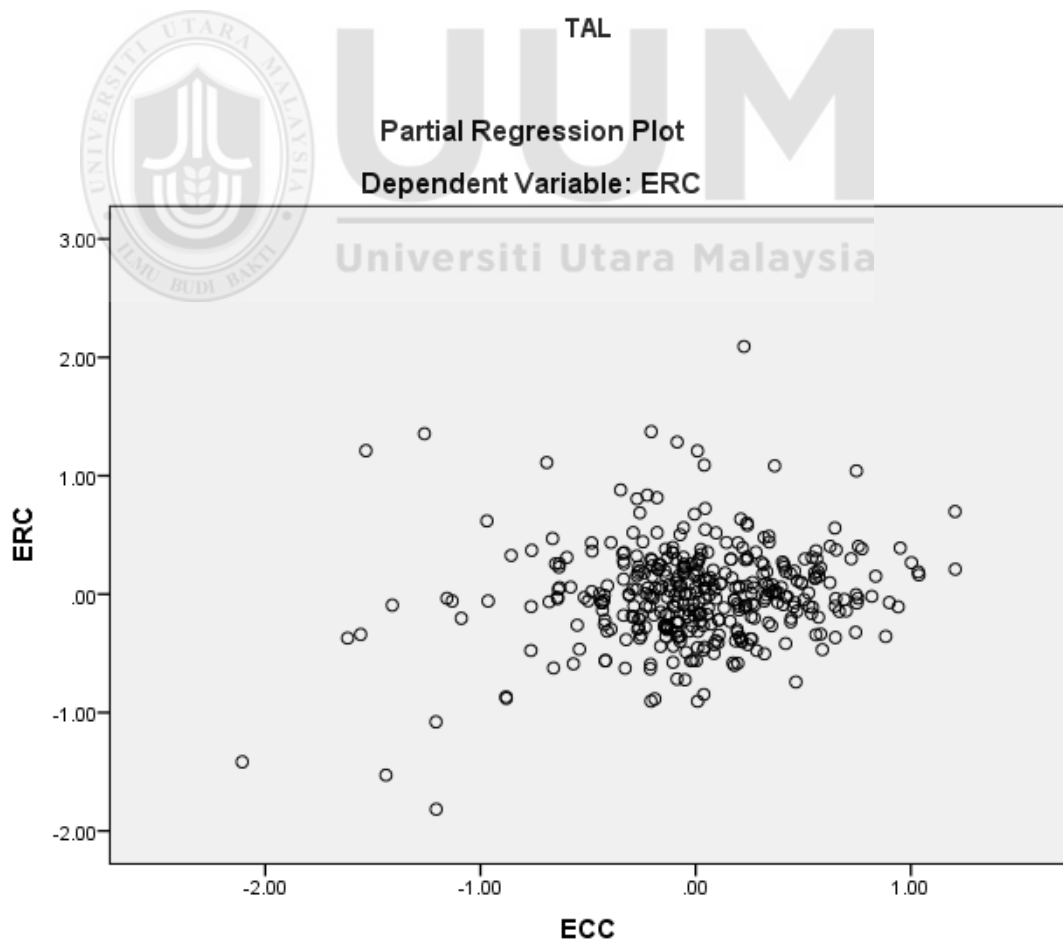
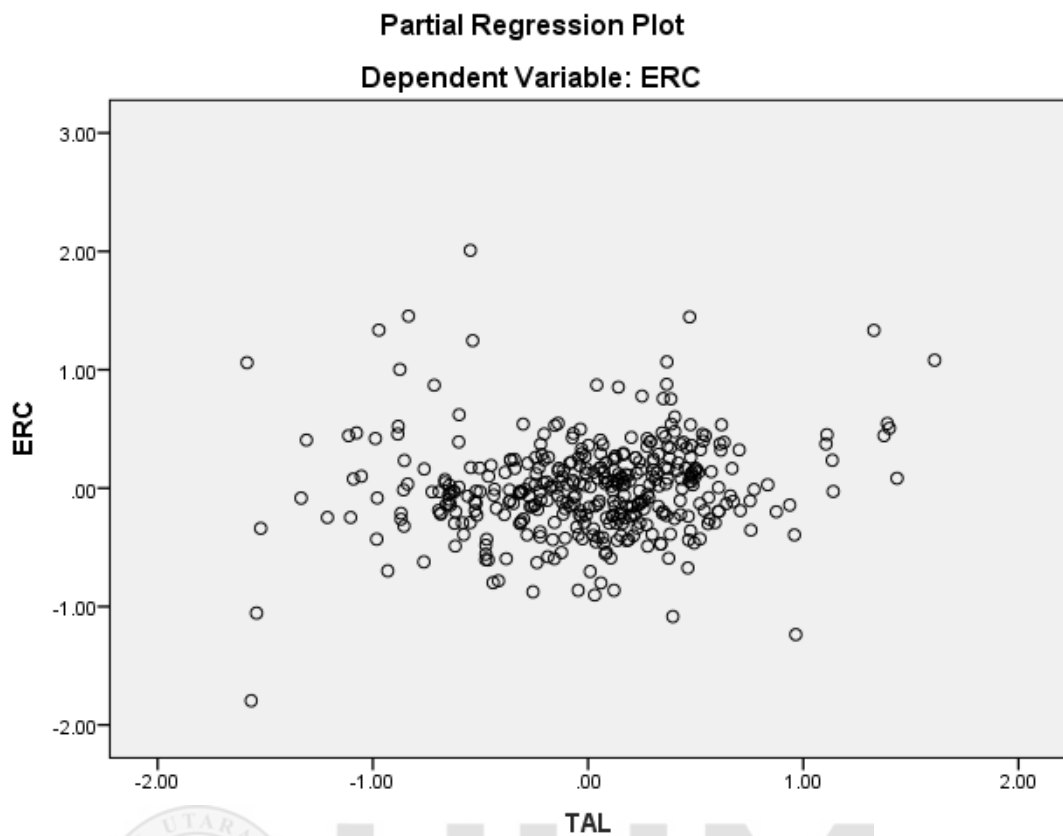
Normal P-P Plot of Regression Standardized Residual



Partial Regression Plot

Dependent Variable: ERC





Appendix 8

Multicollinearity Test

Coefficients^a

Model	Collinearity Statistics	
	Tolerance	VIF
TFL	.702	1.425
TAL	.692	1.445
ECO	.984	1.016

a. Dependent Variable: ERC

Correlations

		TFL	TAL	ECC
TFL	Pearson Correlation	1	.545**	.037
	Sig. (2-tailed)		.000	.468
	N	387	387	387
TAL	Pearson Correlation	.545**	1	.122*
	Sig. (2-tailed)	.000		.016
	N	387	387	387
ECO	Pearson Correlation	.037	.122*	1
	Sig. (2-tailed)	.468	.016	
	N	387	387	387

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).